



VOLUME V

BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In the Matter of:

GARY DEVELOPMENT CO., INC.

Respondent.

Docket No. RCRA-V-W-86-R-45

Courtroom 302
Lake County Courthouse
400 Broadway
Gary, Indiana

Tuesday, December 18, 1990

The above-entitled matter came on for further hearing, pursuant to adjournment, at 9:00 o'clock, a.m.

BEFORE:

HONORABLE J.F. GREENE Administrative Law Judge

APPEARANCES:

On Behalf of the Complainant, U.S. Environmental Protection Agency:

MARC M. RADELL, ESQ.
U.S. Environmental Protection Agency
Region V
230 South Dearborn Street - 5CSTUB3
Chicago, Illinois 60604

On Behalf of the Respondent:

WARREN D. KREBS, ESQ. Parr, Richey, Obremskey & Morton 121 Monument Circle - Suite 500 Indianapolis, IN 46204

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VOLUME V

\underline{I} \underline{N} \underline{D} \underline{E} \underline{X}

TESTIMONY

WITNESSES:	DIRECT	CROSS	REDIRECT	RECROSS
JONATHAN COOPER DAN MC ARTLE LAWRENCE HAGEN	861 916 936	893 931 954		

EXHIBITS

EXHIBIT NUMBER	MARKED	RECEIVED	REJECTED	WITHDRAWN
Respondent's:				
18 19	929 950	931 952		
Complainant's:				
23		936		
31	865	875		
32	879	880		
33	881	936		

1	THE COURT: On the record please.
2	Mr. Krebs, ready with your witness?
3	MR. KREBS: Well he has not arrived yet, Your
4	Honor, the witness we had subpoenaed.
5	THE COURT: Yes.
6	MR. KREBS: Mr. Hagen served the subpoena.
7	And it's our first one, so I know he was served.
8	Perhaps he's just running a few minutes late.
9	THE COURT: Alright. Why don't we, if you
10	have no objection, and I'm sure you don't, why don't we
11	begin by taking out of order the case on rebuttal?
12	MR. KREBS: That's perfectly fine.
13	THE COURT: Mr. Radell?
14	MR. RADELL: I'd like to call Jonathan
15	Cooper.
16	THE COURT: Mr. Cooper, be sworn please.
17	Whereupon,
18	JONATHAN COOPER
19	called as a witness herein, having been duly sworn and
20	having testified, was examined and testified as
21	follows:
22	DIRECT EXAMINATION
23	BY MR. RADELL:
24	Q Mr. Cooper, you last testified in this matter

about three years ago. Has your position with EPA changed at all in the last three years?

A Essentially I perform the same duties that I did three years ago. Officially my title is now, I'm at a higher grade, and my title is Environmental Scientist.

- Q Okay. Are you still the RCRA enforcement specialist for the Gary Development Company?
 - A Yes.

- Q Alright. Have you had any additional job related training in the years that have lapsed?
- A Sure. I've taken several one or three day courses that are offered regarding various subjects related to my duties.
- Q Okay. Alright. When last you testified, you testified concerning shipments of hazardous waste to Gary Development Company from the Jones & Laughlin steel and U.S.S. Lead sites. Are you still familiar with the basic substance of that testimony?
 - A Yes I am.
- Q Do you recall what documents you used to form the basis of that testimony?
- A Yes. The basis of that was responses from both those companies to 3,007 information requests

which I sent to the companies.

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- Q Okay. And what kind of documents did you receive in response to those requests?
- A The basis of our analysis was that the hazardous waste manifests or copies of hazardous waste manifests, and those copies that we received and entered into evidence previously were documents which had on there three addresses: One for the generator, transporter, and the disposal facility. And the signatures, the names on the signatures that were present on those copies that we submitted were of the generator and the transporter, but they did not have Gary Development's signature.
- Q Does EPA have any other copies of manifests from these companies showing that hazardous waste was sent to Gary Development Company?
 - A Yes, we do now.
- Q How are these copies different from the ones that we introduced at the trial last time?
- A These copies have the signature of a receiving person at Gary Development on them. So we have three addresses and three names and signatures from the generator, transporter, and the disposal company.

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1	Q Okay. How did EPA come into possession of
2	this later batch of manifests from Jones & Laughlin
3	Steel?
4	A EPA sent a letter to, I think it's called
5	Broman, and requested that he send copies that had on
6	there the Gary Development signature, as well as the
7	generator and transporter, of course.
8	Q Uh-huh. Do you know if any Certification of
9	Authenticity accompanied these manifests?
LO	A Yes.
11	Q Okay. Have you had the occasion to review
12	this later set of manifests that have come in with a
13	certification?
14	A Yes. I've looked at each individual one and
L 5	what I did is I took the original stack of hazardous
16	waste manifests copies and from our 3,007 information
L7	request and I then took the ones that we received from
18	Carl Broman, the certified copies that I matched up
19	document number for document number, and stapled
20	together each individual one to verify that all of them
21	present.
22	Q And were all of them present?

Yes they were.

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MR. RADELL: Okay. Would you please mark

1	this for introduction? I believe that would probably
2	be number 31.
3	THE COURT: I think so. I had 30 before.
4	MR. RADELL: Yeah, 30 and then that one was
5	not introduced
6	THE COURT: That's right.
7	MR. RADELL:so that would go on 29. Yes,
8	Complainant's number 31.
9	(Whereupon, Complainant's
LO	Exhibit 31 was marked for
11	identification.)
12	(Pause.)
13	BY MR. RADELL:
14	Q Could you please examine that document and
15	tell us whether or not that's the manifest that you
16	received from Jones & Laughlin with the accompanying
L7	certification?
L8	A This is them.
19	MR. RADELL: At this point, I would like to
20	have this moved to introduce into evidence.
21	THE COURT: Mr. Krebs?
22	MR. KREBS: If I could have a moment? I have
23	not seen the certification. He just now gave me a copy
24	of it, so I looking at it.

(Pause.)

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MR. KREBS: We do have objections to the introduction of this exhibit, which I think is number 31, is that right?

THE COURT: Yes.

MR. KREBS: Some of the objections we made the last time when similar documents were tendered preliminarily into evidence in the hearing in September of '87. As the Judge will recall in this case under the pre-trial entry, the parties were to have exchanged all exhibits, and then to have updated all exhibits and exchange those in February of 1987 prior to the commencement of the trial in September of 1987.

We received, myself on behalf of the

Respondent, Gary Development, numerous documents from
the Government, many of which were set forth in these
two volumes of material that I have here--

THE COURT: (interrupting) Three volumes.

MR. KREBS: Three volumes, I'm sorry, at counsel table.

Now those did include, which are marked in this volume as Respondent's Exhibit 20, a letter from LTV Steel Company, which is the successor, to my understanding, of Jones & Laughlin, and included

numerous documents entitled, "Jones & Laughlin Steel Corporation Hazardous Waste Manifests." And I think many of the documents were at least related to the document which is now being offered into evidence at this time on rebuttal, alright. And I believe those were entered, introduce and accepted into evidence as the Respondent's Exhibit 20. They all relate, it appears to me, on their face, a waste with an EPA waste type number K087, and several have the words on them, "tar decanter...", D-E-C-A-N-T-E-R, "...sludge." This was an allegation that was contained in the original complaint by U.S. EPA.

Now we have three and a half, almost four years after discovery, and documents were to have been produced, the Government coming into this case introducing documents related to the same allegation that was originally contained in their complaint and waited until their case on rebuttal to do it. In my opinion, that is highly improper. We were not provided until today with this certification by Mr. Broman. This was never sent to us, even though at the hearing on September 11th, counsel for EPA was instructed to send to us anything which they intended to introduce into evidence when this trial recommenced. I did not

receive this until about 5 minutes ago.

Mr. Broman was a witness in this case, Your Honor. He was called by the Respondent Gary Development because there were allegations raised in the complaint regarding the alleged waste of J&L going to the Respondent Gary Development. So we called Mr. Broman as a witness. He was in this courtroom, you heard evidence from him I believe the date was the 10th of September, perhaps the 9th, but I believe it was the 10th. Your transcripts would show the correct date.

It is indicated in the transcript of
September 11th by counsel for EPA that the documents
which they are now attempting to introduce into
evidence, were obtained by them on Tuesday of the week
we had trial; that would have been Tuesday, September
8, 1987, that they had possession of these exact
documents which they're now attempting to put into
evidence in rebuttal.

That was before they started their case in chief. Their case in chief was not started until September 9th. So based upon the transcripts and representations of counsel made in there, they had these documents the day before evidence was taken, because the first day as you recall, when we arrived

here, we did not have a court reporter, so we did not actually take evidence. And we started evidence on September 9th, if my dates are correct. They had these documents on that date. They did not offer them into evidence. They rested their case approximately a day later. These documents were never given to us during their case in chief, were never offered at all into evidence. They offered instead a document which is Respondent's Exhibit 20.

Mr. Broman, who allegedly signed this certification on this document 31, was present in court, testified regarding wastes sent by J&L, they had every opportunity to ask him questions regarding this waste, they failed to do so. The individual was here, had they have raised this, I would have had the time to cross-examine Mr. Broman regarding these documents. These documents were never revealed.

To me, this is totally improper rebuttal. If this is evidence, it should have been submitted with their documents when they sent them to us in February of '87. If they didn't have them at that time, they should have given us these documents when they obtained them, the day before we took evidence when I was sitting here in this courtroom at this same table.

They chose not to do so. They chose to give us a bunch of these documents in a different form than these are, during the end of the day on Friday, September the 11th, and subsequently never sent us, to my knowledge, and counsel can correct me if I'm wrong, there has been some time lapse here, any other documents related to this.

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Counsel indicated that when we debated this issue last time in this courtroom that these were being, documents were being presented during rebuttal, as opposed to their case in chief because Gary Development had raised issues in their testimony regarding this waste. Last night I took the time to read through the entire transcript of evidence given by Gary Development witnesses prior to yesterday, okay. And that included the testimony of Mr. Hagen right here sitting at counsel table. The only reference I found in our case in chief was, regarding decanter sludge, was in the testimony of Larry Hagen. And it is contained at the bottom of page 688 of the transcript. This is Volume III dated September 11, 1987, which would be the last day of the hearing before we recessed previously.

And specifically I would like to read you

what was being discussed at that time regarding this waste, and I was asking questions. This is Gary's case in chief.

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"Question: Okay, as pointed out by counsel, there's a number on that list also for the decanter Answer: We asked J&L when we filed material from J&L. the Part A, or I should say Joe Tate did, what might you possibly, if you're going to file this Part A, the Government requires we list what we're going to produce. No one knew at that time who had what to We asked J&L what the things were they dispose of. were going to use us for, that they might possibly might want to use us as a disposal sight under, you know, filling this Part A. And they gave us the list that appears on the Part A. Question: And has that been where you got the different numbers from, including the decanter material? Answer: Question--" top of page 689 of the transcript, the question is, "At that time, were you taking decanter material, or did it exist to your knowledge? I really don't know. In the days before RCRA it all went somewhere. I mean things just came in as 20 yards of waste and nobody was obligated by law to tell you what it was, other than 20 yards of waste."

The next question on line 10 on page 289 shifts to the waste of a different company, American Chemical. What I've just quoted is the only thing I could find last night, and maybe counsel has something else, but the only thing I could find in the testimony of our case in chief where this waste was discussed at all, tar decanter-wise, specifically discussed, and that was the discussion.

Based upon that, we have not opened the door to have them come in and bring in all these documents, which they could have put in during their case in chief, which they had the day before evidence was taken, and which they decided not to put into evidence. And now here we are in their rebuttal, and they say this is proper rebuttal. It is not. If it is anything, it's omitted direct testimony from the Government.

THE COURT: Mr. Radell.

MR. RADELL: Your Honor.

THE COURT: I would like to know three things: Why was it not offered sooner, why was it not sent to counsel before now, and why is it proper rebuttal?

MR. RADELL: I'm sorry, I did not hear the

first question.

THE COURT: The first question was why was this series of documents not offered sooner with your case in chief?

MR. RADELL: Originally they, the copies of these documents as explained earlier and just now by Mr. Krebs, were not available to U.S. EPA until two days before the original trial. Since we had not included them in the pre-hearing exchange, we did not think it was appropriate to use them as our primary evidence.

Mr. Broman testify about them either because he testified before Mr. Hagen, upon whose testimony we decided that it was necessary to use these, because Mr. Hagen later, not at that point when we originally asked him about the Jones & Laughlin Steel, but later in his testimony he testified that he had never signed any hazardous waste manifests and that Gary Development Company had never accepted any hazardous waste. So it was not specifically to rebut the fact that this was K087 waste, which was what Mr. Krebs was just discussing, but to rebut the fact that Gary Development Company had taken any hazardous waste at all.

Now we determine it was necessary. And we did attempt to introduce these at this point with Mr. Hagen as the signatory for one of the documents, to provide the basis for introduction into evidence. So we did try to admit these into evidence after last trial, but they were not admitted because the copies were not certified and they were—some of them were rather illegible. So not only are these copies certified, but they've also been—each copy has, each manifest has been copied on an individual sheet, instead of having two manifests on each side, as had been. So that's why we didn't do this previously.

And then we did sent it to opposing counsel by--in case it was--and your being dismissed while we were waiting for--to find out whether or not we were going to be coming back to a hearing. Then I guess it was an oversight on my part then. And you did give a ruling that I had time--and it's been a couple of years, but they've got the same meanings for evidence.

THE COURT: Well I remember that they were illegible before and that we had a problem with it, however I'm astonished that this wasn't sent at the time when this current series of hearings was scheduled, at least at that point Mr. Radell. Your

recollection ought to have been refreshed.

Nevertheless, they are highly relevant, and although I don't care for everything I see here, I will admit them, and I will admit them on rebuttal with some reluctance, but not enough to prevent me from taking them in as to their appropriateness on rebuttal.

Number 31 is received.

(Whereupon, Complainant's Exhibit 31 was received into the record as evidence.)

THE COURT: Now, continue.

BY MR. RADELL:

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- Q Okay, Mr. Cooper, you said also that EPA had received additional manifests from U.S.S. Lead?
 - A Yes we did.
- Q Could you please explain how EPA came into possession of the copies of those manifests?

A EPA Office of the Regional Counsel requested that a woman, I believe it was a law clerk, Sue Weimer, go down and actually copy the documents directly at U.S.S. Lead. And so she went down there previous to the September, 1987 start of this hearing and actually copied those.

Q Why did an EPA representative go copy these

instead of having someone from U.S.S lead send us copies?

A U.S.S. Lead was in bankruptcy. Apparently Mr. Liscum, Richard Liscum, who is in charge of the copies would not go to the office everyday; it was closed, basically. A phone answers in his own house and so on, and it's possible that they didn't even have a copy machine. It's my recollection that the copies were made from the manifests as they were picked up and taken somewhere else, copied, and then brought back to U.S.S. Lead. So arrangements had to be made ahead of time for Mr. Liscum to actually be there, open the office, give the documents to Sue, and then be there when she came back to return them.

Q Okay. Are you familiar with the copies obtained by Ms. Weimer?

A Yes.

Q Have you compared them to the manifests previously introduced as evidence into these proceedings?

A Yes. Just as the ones for J&L Steel, I took each manifest copy that we originally got with the name of the generator and the name of the transporter sign on there, but lacking the signatures of Gary

Development, I took each of the ones that Sue Weimer brought back and stapled them one for one, you know, looking at the hazardous waste manifest number, the date, and the signatures that were on there and comparing them, and then found that in almost every case, there was a one for one correspondence with the one she copied and the ones we had gotten from 3,007 information request.

Q Were there any discrepancies?

- A My recollection, there were two discrepancies. One in which we didn't have the generator and signature—the generator and transporter copy of the original 3,008H—or 3,007 information request. We didn't have that from 1987, b ut we did, and Sue Weimer's copy actually had one with three signatures, Gary Development's signature—in other words, the one with the three signatures on them we did have we were lacking one with the two signatures.
 - Q Okay. So that was one discrepancy.
- A Yeah. There was one other discrepancy. I think that we actually had the matching copies, but in fact, there was no Gary Development signature on the second copy either. There was an oversight or I don't know, Gary Development's signature was on neither of

the copies that I stapled together.

- Q Do you remember the numbers of those manifests by any chance?
 - A I don't.

- Q Did you, at the time that you were reviewing these manifests, did you take any notes that would document those numbers?
- A Yes. I wrote them down and kept records so I wouldn't have to go back through again to check it.
- Q Is this the copy of--is that the notes that you wrote down at the time?
- A Yes. This is the notes regarding U.S.S. Lead ones. And two discrepancies I noted were hazardous waste manifest number 275, in which the Gary Development signature of receipt of the waste is not on that document, and number 2402, 2-4-0-2, we have in that one just the one with the three signatures, however, the Gary Development signature is there, but it's practically, possibly it's illegible actually. But there is a signature.
- Q Did you at any time attempt to obtain certified copies of manifests from U.S.S. Lead?
- A Yes I did.
 - Q And whom did you contact?

1	A Mr. Richard Liscum.
2	Q And did he provide such copies?
3	A He was unable to do so when we contacted him
4	when we noticed that the hearing was going to be
5	resumed. Sometime in the summer we contacted him and
6	he told us he was not able to any longer give us
7	certified copies. And he told us that in fact there
8	had been a fire at the office, I believe it was in May
9	of this year, and he was no longer able to provide us
10	copies of those documents.
11	Q Did he confirm that in writing at all?
12	A Yes he did. He sent a letter to us stating
13	that.
14	MR. RADELL: Could you please mark this as
15	Complainant's Exhibit number 32?
16	(Whereupon, Complainant's
17	Exhibit 32 was marked for
18	identification.)
19	BY MR. RADELL:
20	Q Is this the letter you received from
21	Mr. Liscum?
22	A Yes it is.
23	MR. RADELL: Then I'd like to move to
24	introduce that into evidence.

1	(Pause.)
2	THE COURT: Mr. Krebs?
3	MR. KREBS: Yes. II'm not sure I have an
4	objection, but I'm not sure what the purposethis
5	letter, Your Honor, is dated December 7, 1990, which is
6	a matter of about 10 or 11 days ago. I'm not sure how
7	this is evidence regarding the complaint that was filed
8	in 1985. If counsel maybe could explain that, I may
9	have no objection, but I'm not sure what the
10	relationship is at this time.
11	MR. RADELL: It merely indicate that the
12	original of the documents we attempted to introduce in
13	1987 have been destroyed by a fire, and we're therefore
L4	unable to obtain certified copies of them.
L 5	MR. KREBS: No objection.
16	THE COURT: Number 32 is received.
L7	(Whereupon, Complainant's
18	Exhibit 32 was received into
L9	the record as evidence.)
20	BY MR. RADELL:
21	Q Mr. Cooper, are these copies of the documents
22	obtained by Susan Weimer?
23	A Yes, these are the documents.
24	THE COURT: Now when were these copies made,

1	Mr. Cooper?
2	MR. RADELL: Early September of '87.
3	THE WITNESS: Early September '87, that's
4	right.
5	MR. RADELL: Would you please mark those as
6	Complainant's Exhibit number 33?
7	(Whereupon, Complainant's
8	Exhibit 33 was marked for
9	identification.)
10	MR. RADELL: I'd like to move to introduce
11	these documents into evidence.
12	MR. KREBS: Could I ask a question on the
13	purpose of objecting please? I think the witness may
14	have answered.
15	Mr. Cooper, when did you say that EPA
16	received these documents, which are now marked as
17	Complainant's Exhibit number 30?
18	THE WITNESS: They were just prior to the
19	September, 1987 start of this hearing.
20	MR. KREBS: So early September, '87
21	THE WITNESS: (interrupting) Yes.
22	MR. KREBS:or late August?
23	THE WITNESS: Early September.
24	MR. KREBS: Okay, but before the hearing

started?

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THE WITNESS: Yes.

Okay. Was there any reason why MR. KREBS: these documents were not provided to Gary Development or to me as their counsel prior to today?

MR. RADELL: If I could explain--

THE COURT: Well alright, just a moment. Ιn the first place, Mr. Krebs, a moment ago you said Exhibit 30, number 30, and it's been marked 33, so in order to avoid confusion, the material we're discussing here that's just been offered is Complainant's, for identification, 33.

Now then, that's a question that I certainly would like to have addressed, but I'm not sure that I want you, as the witness. This is in the form of an objection, it seems to me. What's the explanation?

MR. RADELL: These were provided to Gary Development Company at the last trial. That's why they originally had Complainant's Exhibit number 30 on them, and these were the copies that were not introduced into evidence before because we did not have a certified But Gary Development should have had these since copy. September of '87 when we originally gave them to them.

> THE COURT: Alright. Mr. Krebs?

MR. KREBS: Your Honor, I don't believe we received these. I just talked to Mr. Hagen here, and he said he's never seen them in this form. I'd like to point out, and if I'm mistaken, I'll be happy to be corrected, but I don't remember ever receiving these documents. And page 787 of the transcript in this hearing on September 11th, when counsel evidently attempted to enter these documents or some similar to them, and I believe that that time we were discussing number 31 on page 787, I discussed the fact that I did not have them and The Court said, "You will copy it and get it and get it to you forthwith, like early next And I suggest that you also make another copy of number 30 in its present form with the material taken out of it that should be taken out and send him a copy of that too, and anything else you may intend to use on rebuttal, together with Mr. Radell, the names of any additional witnesses you will call for your case on rebuttal."

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So in that paragraph, to me it appears that we were discussing these documents at that time as 30 being the exhibit -- or the documents that have now been admitted as Complainant's 31, the Jones and Laughlin manifest documents, and we also discussed at that time

a proposed Exhibit 31, which apparently now is

Complainant's Exhibit 33, which is forms from

Industrial Disposal Corporation regarding the U.S. Lead

refinery, Inc. I really don't believe I received

these.

I mean I've got a lot of paper in this case;
I received a lot of things. There are documents very similar to these in this blue compilation of documents, and I believe that the documents similar to these, or at least that incorporate portions of these documents have previously been introduced in this cause, and I believe they are Complainant's Exhibit 23 on
U.S.S. Lead, and I have received those documents. But they're not the same as the documents here that are now marked Complainant's Exhibit 33.

The second objection, other than not having these, in my opinion, before today, is that again there is no certification as to the authenticity of these documents. There has been no individual who has been brought to testify from U.S. Lead refinery, as to the authenticity of these documents, as to them being correct, we have a witness from EPA who's testifying that he believes another person from EPA was involved in the reproduction of these documents.

I mean, if--it seems to me that in a case of this nature where the United States of America is trying to condemn a sanitary landfill as being a hazardous waste site, and now we've gone through about six different waste streams. We started off with waste streams from J&L that had been delisted, that the EPA had delisted; published in the Federal Register, and yet EPA files a complaint in this case saying that my client took a particular type of waste from Jones & Laughlin that was hazardous, when the same agency had delisted the waste as being non-hazardous. We continue to come up with new waste streams, we knock down one of the straw dogs, they bring up another. We knock it down, they bring up another. We call real people in this case, all they do is bring in a bunch of forms. Now we have forms where a company is allegedly not in existence, they somehow are able to get a letter from an individual that says he knows that the original documents were destroyed, but they haven't brought in a person into this courtroom that can identify these documents as being the complete records of this company regarding this waste. They haven't even brought in the EPA person who allegedly was involved in photocopying these documents. We have an environmental scientist

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here sponsoring exhibits that are not EPA's exhibits.

And I just think this is highly objectionable.

We have subpoenaed people in this case, and I don't see why the Government can't send out subpoenas if they want to tie somebody to a waste stream, why they cannot send out a subpoena—certainly there must be some people at this company that are still in existence on this Earth and they're not deceased, even if the company isn't around. There are signatures on these forms. They could have subpoenaed the people whose names appear on these forms and bring in real evidence in this case and give me the opportunity to cross-examine people; I cannot cross-examine these documents.

THE COURT: I'm having some problem with it too, Mr. Radell. I think at the very least we could find the person who actually made the copies who--

MR. RADELL: (interrupting) She's no longer employed at the agency.

THE COURT: Well she presumably is still alive, and this--I have the same problems. There just is really no--nothing to tie anybody to this. All we have is documents and testimony that somebody went somewhere and copied them. Now it really isn't fair.

There are people who could have been called, and even if this lady is not still an employee of the EPA, you could bring her.

Now if you want to try and bring her for sometime today or possibly tomorrow, I will entertain an effort in that direction. But I don't think I will admit them based on what we've heard so far. It just really is not fair to the defense and I presume that agency too does not wish any action it takes to be founded upon evidence which really is not perfectly fairly based.

MR. RADELL: Well it is the best available evidence since the originals have been destroyed, so we will never get copies better than this. And it--

THE COURT: (interrupting) Well--

MR. RADELL: --certainly is relevant to the proceedings and I think that--

THE COURT: (interrupting) It may very well be relevant, but there has to be some connection with somebody who actually had some hands-on here. Now perhaps you can find the lady who made the copies, who could at least testify where she went and what she did and that these are the ones she made, but this is going a little bit too far away in my view.

MR. RADELL: I would also point out that these, when compared with the copies that had been admitted into evidence already, which have been certified as authentic pursuant to the information requests sent to U.S.S. Lead, that it's very evident when comparing these copies to the copies previously admitted, by comparing the manifests and the information currently filled in on those forms, and their unique manifest numbers, that these are copies of documents that have already been admitted, it's just that these have an additional signature.

THE COURT: Well I haven't had an opportunity to compare what's in evidence with what you have just handed me.

MR. RADELL: Yes, and Mr. Cooper testified that he went through--

THE COURT: (interrupting) Yes.

MR. RADELL: -- and compared each one.

THE COURT: I heard it. I heard the testimony. If you will, during the next break, provide me with copies of what is already in evidence, I will take another look at it. I will withhold ruling for the moment.

MR. RADELL: Okay.

THE COURT: Now continue. 1 2 MR. RADELL: This basically concludes 3 Mr. Cooper's testimony for rebuttal, however, the Court had asked Mr. Cooper to also explain how, if at all, 4 5 these EPA stipulation regarding the withdrawal of F006 wastes from the complaint would affect the penalty 6 calculation. Would the Court like to have me proceed 7 to have Mr. Cooper testify in that matter? 8 9 THE COURT: Yes please. 10 MR. RADELL: Okay. 11 BY MR. RADELL: Mr. Cooper, are you the one who originally 12 Q 13 calculated the penalty for the complaint for this 14 matter? 15 Yes. 16 Have you had an opportunity to review that 17 penalty calculation in light of the fact that 18 allegations concerning hazardous waste number F006 have 19 been dropped from the complaint? Yes I have. 20 Α 21 The penalty policy that was in effect at the 22 time of this complaint being filed, is that the policy 23 that you use as basis for calculating the complaint--

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the penalty?

A Yes.

Q Does that policy refer to, or give any indications how volumes of wastes or quantities or different types of waste are to be weighed in determining the penalty amount?

A It says that under the potential for harm to the environment, that can be a factor which can be considered.

- Q Uh-huh.
- A It doesn't get more specific than that.
- Q Okay. So was that factor that may be considered or must be considered, is it just that policy state either way?
 - A It says "may be considered."
- Q Okay. Did you consider the volume for the variety of wastes accepted at the facility, and your calculation of the penalty amount?

A At my discretion, what I did was to not consider specifically the numbers of wastes or the quantities of wastes. The important thing to me was the potential for harm can be broken into two categories, and this is potential for harm to the environment by the wastes that have been buried at the facility or, and the word or is used, or the potential

for harm to the implementation of the program under the Resource Conservation Recovery Act or the statute. when this facility was referred to us by the State of Indiana for enforcement, it was very clear that facility had received hazardous wastes, number one, and also very clear that the facility was not complying with the majority of the regulations for hazardous waste management under the Resource Conservation Recovery Act. And my feeling was that in calculating this penalty, and you will look on every sheet that I submitted that has been entered into evidence in the penalty calculation, I refer to the potential harm to the program and the statutory regulations by a facility completely, blatantly ignoring implementing those regulations. There's no reference to waste finds or types of wastes, but it's certainly decided in my mind that the evidence was there that hazardous wastes had been accepted. The harm to the program was the major thrust of the penalty.

- Q And it is your belief that this was consistent with the requests of all the county policy?
 - A Yes.

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Q Does the penalty policy give any sort of examples, or what is the basis for your belief that

that is consistent with the penalty policy?

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A Well I believe there are some examples that are given and that we use when we review it. There is one example that even though the potential for harm to the environment can't be calculated, in this case specifically because they had no wells that actually monitored for RCRA parameters, we didn't know if they were actually being released. It was difficult to quantify harm to the environment, although the potential was there, the Civil Penalty Policy of 1984 allows you to, in spite of not knowing specifically quantities or actual harm to the environment, it allows you to assess a major part of the penalty on just harm to the program.

Q Based upon your review of the penalty calculations subsequent to EPA's withdrawal of allegations concerning hazardous waste F006, do you believe that the penalty assessed should be reduced, or should it be the same or--?

A It should be the same, at least; it should not be reduced.

- Q And why was that?
- A Because I still think, as I said, blatantly ignoring the regulations after having taken hazardous

waste from 1980 and into 1983, not even counting the F006 waste which were, as opposing counsel has pointed out, temporarily delisted, but that delisting was denied in the final allegation, final analysis. Waste was taken for, over a period of three years, '80, '81, '82, '83, and the facility has stated in this hearing even that they have not accepted hazardous waste, we believe the evidence was there, the penalty could have been much higher in fact, and I don't think it should be reduced based on harm to the program, specifically.

MR. RADELL: Okay. Thank you. I have no further questions.

THE COURT: Mr. Krebs?

CROSS-EXAMINATION

BY MR. KREBS:

Q Mr. Cooper, I guess I'm somewhat confused about these forms we have in Exhibit 31, and there is an affidavit or a certification I guess, by Mr. Carl Broman, which you've discussed. And I guess it seems to me it's pretty complex, but maybe I'm just a little--lack of knowledge of forms of this nature. Is this a standard form that you use in the industry today for an EPA manifest of RCRA waste?

A Forms would vary. In this case, I mean it

says J&L Steel at the top; it's not a generic form.

It's a form, in this case, where they had a part A and a part B to it, original 3,007 information request.

The company only submitted a part A, which does not have Gary Development's signature on it.

Q Okay.

A And part B has the signature from the company, and that is returned upon receipt at the facility.

Q Now I think you've testified to this, but is it correct your testifying that every signature at the bottom of each one of these pages is from, to your knowledge, an employee, at least at some time, an employee of Gary Development? Is it correct your testifying to that under oath here today?

A I believe that in the previous testimony when Mr. Hagen was on the stand, we went through the different names that you have, Brian Boyd and Pat Craig or Pete Craig, and we went through and established, through his testimony, that these people were former employees of Gary Development.

Q Okay. So your testimony is your recollection of Mr. Hagen's testimony on September 11, 1987 as far as signatures, alleged signatures, by employees of Gary

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A Yes, I think that my attorney asked specifically every name that we--that was legible on those. We asked if they in fact had been employees at one time of Gary Development.

Q Okay. I'm going to hand you manifest number 0207 for the fact--at least on the top of mine, it appears that it is 0207 and maybe a 4, correct? Does that look like a 4 to you?

A It looks like a 4, yes.

Q At the bottom it's just 0207, is that correct, there is no four?

A That's correct. That's the way we have received these copies on the certified copies, as the cover document to this exhibit shows, these are certified copies from Carl Broman, who matched up part A and part B of this specific manifest.

Q Okay. What's the signature, or what's the individual's name there at the bottom?

A That is Brian Boyd. I've looked at many, many, many of these documents, and I would recognize his signature anywhere.

Q Is that his signature, or is that printed?

A It's actually printing. He has printed--

1	Q Where do you see "Boyd"?
2	A Well I know that's the name. I mean, it's
3	hard to read, but I know it's the name because I've
4	looked at so many of these documents with his signature
5	on it.
6	Q But actually you can't read the word "Boyd"
7	there can you? You can read the word "Brian", correct?
8	A That's right.
9	Q So you're presuming that's Mr. Boyd because
10	you can read his first name?
11	A Based on experience of looking at hundreds of
12	these manifests, I know what the name is enough to read
13	it, and enough to recognize it.
14	THE COURT: Mr. Krebs, I wonder if the copy I
15	have here would be more useful when you're examining
16	him, both as to the numbers and
17	MR. KREBS: That one is better. Yes. I
18	apparently always inherit the fifth generation copies.
19	THE COURT: No, last time I was the one.
20	BY MR. KREBS:
21	Q Now I'm still a little confused about how
22	this operates or how J&Lyou believe they operated
23	under this form. Would they take this whole form to

the disposal facility? Would they take this A and B

and say, here's this waste, here's tar decanter sludge, KO87, please sign that you're going to receive it, is that what happened?

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A I would imagine that when it is taken by the transporter, he signs off, he takes a copy he's given and left with the generator, and it's probably, like in a lot of these cases where they have—carbon copies are made and the top one can be ripped off and left with the generator after the transporter receives the waste, and then upon delivery of the waste and receipt by Gary Development, they or the transporter, would then send it back to J&L Steel in this case.

Q Well it is—if you read this, and Mr. Broman is not here obviously to testify, even though he's testified in this hearing before under my subpoena, that if you read his certification, is it correct that what he's saying is that what would have been sent to the disposal facility would simply have been the part B, a form which does not describe the waste at all, and that signatures are obtained and that that's why these things appear like they've been in the courts were previously monkeyed with because this bottom form comes back and it's been torn off the top form, and the bottom form comes back, and then someone has to match

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1	up or attempt to match up the bottom half with the
2	correct top half, isn't that basically what this
3	process was?
4	A Yes, but I would anticipate that obviously
5	the trans
6	Q (interrupting) The answer is yes, right? So
7	that would mean that a person signing this form would
8	have no idea what the waste is?
9	A (Simultaneously) That's not true
10	MR. RADELL: (Simultaneously) Objection.
11	THE WITNESS: That's not true.
12	MR. RADELL: You're asking him to conjecture
13	about something that he'd have no knowledge of.
14	MR. KREBS: I would like to ask this question
15	of Mr. Broman, but he's
16	THE WITNESS: Well okay. Let me tell you
L7	what the hazardous waste managementhazardous manifest
18	system is set up
L9	MR. KREBS: That's not my question. I don't
20	care about the hazardous manifest system. Just please
21	answer my question.
22	THE WITNESS: That's what we were discussing,
23	sir. This is the hazardous manifest

MR. KREBS: (interrupting) You said--

THE COURT: (interrupting) Just a moment.

BY MR. KREBS:

Q (interrupting) You said this is not a typical form used in the industry, correct? Today.

This is not a generic type of RCRA form, right?

A If--

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Q No, I'll give you the opportunity to answer. Just answer that question.

But what I am saying is that there are different forms available state to state, company to But the forms have to meet certain company. specifications. They have to have on there the generator, the transporter, and the disposal or receiving company. And typically you have -- the top form is kept by the generator when the transporter picks it up, the second form goes with the transporter to a disposal company, then the transportation company then gets their copy after they disposal company receives it, so that the transport company has a record of the generator, the transporter, and the disposal company as well. And then, in order to complete the cycle, part B in this case, must be sent back to the generator so that he knows. Everybody knows it's been delivered.

Q Let me ask you this though: Is it standard to tear off a part of a form and take that part to the disposal facility? I mean to me, aren't you supposed to notify the disposal facility of what the waste is? How can you tell from part B what this is? How could you tell it's KOO87 versus trash?

MR. RADELL: I'd object to that to the state of mind of the person receiving the waste. The knowledge of that person is relevant to this proceeding. This is not a criminal trial, so the frame of mind of the person receiving the waste is irrelevant.

THE COURT: Overruled. Let's hear the testimony.

THE WITNESS: I am sure that if you went to the transport company, if they were still in existence, and I'm sure they are, but that they would have a copy from which this part B was torn off and at the time, I would submit to you the time that this was delivered to Gary Development there would have been a document attached to this part B which would have said who the generator was, who the transporter was, who the disposing company would be that will receive it, and that information, in this case KO87, would have been in

1	front	of the	person	as	he	wa s	signing	the	document
2	BY MR.	KREBS:	•						

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- Q Yeah, but what you just told me is that it's very likely that the top portion of this form on the second part of this two page form, duplicate, that's sent to the transporter is probably in the files of the transporter, correct? That's where it stays? That's what you just said, right?
- A There would be a copy with the transporter.

 There might be a copy--
- Q (interrupting) which means this copy never was close to the facility. That what we have is J&L has a two page form. They keep one page of it which is a part A and a part B, is that correct?
- A They give the other one to the transporter, the third part. And the transporter takes the other portion and he gets this signature on this part B and sends it back to J&L supposedly.
- Q How does anybody know that the disposal facility was given a copy or was shown part A? How do we know that?
- A This form may have had three parts, I mean three pages. It could be--
 - Q (interrupting) It doesn't say that in the

902 certification. You're speculating, Mr. Cooper. 1 Ιt 2 says two parts right there in the certification--The two parts--3 (interrupting) -- that you won't call. 4 0 Two parts, but we don't know how many 5 Α original, the original of how many carbon copies there 6 7 would have been to that. Gary Development -- might have had a carbon copy. 8 Might. Do you know for a fact? 9 0 I don't know that they do--10 Α (interrupting) Have you ever asked? 11 Q 12 They've never produced--Α (interrupting) Have you ever taken 13 0 14 Mr. Hagen's deposition in the five years that this case 15 has been pending, to your knowledge, asked him about 16 these forms? He has stated he has never taken hazardous 17 18 waste. 19 Have you ever taken his deposition, to your 0 20 knowledge? 21 Α No. 22 To your knowledge, have you ever taken Q

We haven't taken his deposition.

Mr. Broman's deposition?

A

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Q To your knowledge in this case, every one of these forms, is it not correct, has the transporter as being Industrial Disposal Corporation, East Chicago, Indiana, correct?

A Yes.

Q Have you discussed this matter with anybody from that company?

A We have tried to contact that company to get copies from them. They are apparently—were out of business. There was no way to get in touch with them. In fact, Mr. Hagen himself told me they were out of business.

Q Have you attempted to find the location, to your knowledge, of anybody that used to be with that company?

A We did make some efforts to try to get copies of transcripts or copies of manifests from them. They were unsuccessful.

Q Who did you talk to?

A I think we called the numbers on those forms, that I believe there should be phone numbers on there. There was no way to reach anybody.

Q So EPA really doesn't know at this time what the transporter showed to Gary Development? You don't

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1	know what part of this form was shown to Gary
2	Development on each one of these, isn't it correct?
3	You have no information one way or the other on that?
4	A We only know what's required for hazardous
5	waste manifests under the regulations
6	Q (interrupting)what's required, do you
7	know what happened?
8	A We can only speculate on that.
9	Q Thank you. Included in these documents is a
10	manifest 01821 and a manifest 02080. And these are
11	copies that you provided to me. The Judge has the
12	original. There's a person's name, it looks like an
13	M. Lockes or Lopez.
14	A Lopez.
15	Q Lopez.
16	A Uh-huh.
17	Q Are you telling us that you believe that is
18	an employee of Gary Development?
19	MR. RADELL: I don't believe he's expressed
20	any opinion on that matter.
21	MR. KREBS: Well he can say now.
22	THE WITNESS: I don't recall the original

testimony whether we actually asked that.

23

1 BY MR. KREBS:

Q Well that person has signed and it's marked as a clerk and it has a date of receipt May 15, '81 on one and May 26, '81 on the other, correct?

A Yes.

Q And they signed for the disposal facility, correct?

A Yes.

Q What would be your opinion of these documents if you found out that person worked for the transport, never worked for the disposal facility, and that individual was an employee of the person who allegedly took this waste from the generator to the facility for disposal?

A It certainly wouldn't be the standard procedure.

Q Regarding your fine calculation, you discussed that you're not going to change your opinion as to an amount of a possible fine in this case. And basically two things that caught my attention that you testified to. You said the one thing you are to look at is the potential harm to the environment, and if I could paraphrase your testimony, and correct me if it's not correct, is that basically the only analytical test

of groundwater have been by the landfill, and that those aren't sufficient for you to determine whether there is or is not a potential harm to the environment, is that basically a correct paraphrasing?

A It's very difficult to determine whether there's been any release to the environment based on the wells, the insulation of the wells, the existing wells, and the parameters that have been analyzed for they're not all RCRA parameters, okay.

- Q In fact they're all most not RCRA parameters, correct, the ones that they test for?
 - A Right. Right.
- Q Okay. This case was file what, back in 1985 approximately?
- A '86.

- Q '86. And this facility filed a part A application back in the early '80s?
 - A Late '80, 1980. Part A 1980.
- Q If EPA believes there might be, I'm saying might be, a potential harm to the environment at this site, why hasn't EPA done any monitoring itself during the last 10 years at this facility?
- A It's the company's responsibility under
 Resource Conservation Recovery Act to install adequate

wells and to monitor them. In fact, as late as last
year, the company was told by the State of Indiana,
IDEM, that this site needed a minimum of nine wells
with two at each location-Q (interrupting) Who told you that?

- A --which would be eighteen wells.
 - Q Who told Gary Development of that?
- A Indiana Department of Environmental Management.
- 10 Q Who?

- 11 A Carol Schmidt's group in the geology section.
 - Q Who specifically had the conversation with Gary Development and who did they talk to? I want to know the person, I want to know the date, and I want to know who they talked to at Gary Development.
 - A I've got the documents in my--right on the desk if you'd like me to tell you the dates.
 - Q Okay.
 - THE COURT: Mr. Radell, will you further -- the question.
 - MR. RADELL: I'm not sure to which document he is alluding, so perhaps I'll have to come eye it myself.

(Pause.)

BY MR. KREBS:

- Q Now did you find a letter from the Indiana

 Department of Environmental Management to Gary

 Development?
 - A Yes I did.
 - Q Okay. And can you give us the date?
 - A The date of this letter is October 19, 1989.
 - Q And it's from whom to whom?
- A This is from Carol Schmidt of the geology section to Mr. Larry Hagen.
- Q Okay. And why don't you read us what it says regarding monitoring wells?

A "Please find enclosed construction details, insulation instructions, date of collection requirements, and sampling analysis procedures for groundwater monitoring wells as promised per your phone conversation of September 11, 1989 with Mr. Ed Gefell, a geologist on my staff. This information comes from the United States Environmental Protection Agency, Technical Enforcement Guidance Document, and is for your reference in planning and installing an adequate groundwater monitoring well system at Gary Development Corporation Landfill. IDEM and U.S. EPA require a minimum of one up gradient well..." and minimum is

1	underlined, "and three down gradient wells for both
2	RCRA hazardous wastes and solid waste facilities Ed
3	explained over the phone."
4	Q Just so, what we apparently have here is a
5	response from the state to Mr. Hagen's request for
6	information on monitoring well guidelines, correct?
7	A Yes.
8	Q It appears to you? So it appears that he's
9	asking them for information. They're not ordering him
10	to do anything, correct?
11	A In my discussions with Ed Gefell prior to
12	this
13	Q Who is the person you're going to tell me
14	about? Ed who?
15	A Ed Gefell is the person who is the geologist
16	on the staff of Carol Schmidt. He's the one that would
17	have been talking with Mr. Hagen directly. And he had
18	had discussions with me about the monitoring well
19	system still being inadequate for RCRA monitoring
20	purposes.
21	Q His opinion, in discussions with you, and
22	this letter does not reference that at all, does it?

(interrupting) No it doesn't.

Is there any reference--

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Q --in this letter dated this year that the monitoring well system at Gary Development isn't adequate?

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- A It doesn't specifically state that.
- Q Do you think that if they thought it was, they might have said this in this letter they wrote to regulated facility?

It does state that, inadequate groundwater monitoring system and sampling analysis plan assures the owner/operator and the IDEM that sufficient groundwater monitoring data of adequate quality are obtained to characterize groundwater contamination patterns and flow directions at the facility." And it goes on to say, "An acceptable monitoring well system and sampling analysis plan, including RCRA monitoring of hazardous waste parameters would address a major and fundamental complaint of the state and U.S. EPA with Gary Development Corporation, and would assure accessibility of acceptable groundwater samples in the Ed will work with you and we look forward to future. an adequate groundwater monitoring well system at Gary Development Landfill."

Q Okay. So that's what the letter says. It said that--does it mention nine wells or does it say

one up gradient and three down gradient as minimum.

A As minimum. In this case, it does not specifically mention that. That was in the previous--

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Q (interrupting) Back to my question. And I appreciate you sharing that information with us from the State of Indiana, but my question is—well let me ask you this question, does EPA have the legal authority to go out to this site and put in groundwater monitoring wells?

MR. RADELL: Excuse me, you're asking him to testify about legal matters when he's not competent. He's not an attorney and I believe that the legal—the EPA's legal authorities have been on the face on this statutes and regulations.

THE COURT: I will permit the testimony. If you know the answer, Mr. Cooper, you may answer.

THE WITNESS: I honestly don't know, except under CERCLA, you know what funds would be available for actually going out and actually put in wells and sampling.

BY MR. KREBS:

Q Okay. But to your knowledge, EPA has not constructed any monitoring wells at Gary Development's

facility or adjacent to it, to your knowledge?

- A The have not.
- Q Have EPA ever sampled the water or made any attempt during the last 10 years to sample any water that is generated in the existing four monitoring wells adjacent to Gary's facility?
 - A No.

- Q You indicated that the second item that is looked at in determining potential fines is the affect upon the implementation of the Act by the facility's compliance or non-compliance. In connection with that, can you tell us the first time that EPA advised Gary Development in writing, officially, that they were a RCRA facility and were not in compliance with all the various provisions of the regulations which are cited in the complaint? Can you tell us when the first correspondence or notice went out that constitutes an official order or notification by the agency as to that determination?
 - A What specific determination?
- Q Okay. The complaint.
- 22 A Yeah.
- 23 O You calculated the fine--
- 24 A (interrupting) Right.

Q --based upon the allegations in the complaint. The complaint alleges numerous non-compliance with federal regulations, monitoring, leachate collection system, you name it, it's in there, correct?

A Uh-huh.

Q Almost the entire Act is for all regulations, many of them are in there. When was the first time that EPA ever notified Gary Development that it was not in compliance with each and every one of those regulations, prior to the issuance of the complaint?

A That was the only time, when all of those were referenced. Previous to that, the State of Indiana had performed the inspections at the facility and sent those in their referral to EPA for enforcement action. So the State--

Q (interrupting) Okay. I think those documents have been put into evidence previously, right?

A Yes.

Q And I think there was an individual you called as a witness from the state, Mr. Warner?

A Mr. Ted Warner is State Inspector.

Q Okay. And so those we've already had. So

those type of documents would be in this case, correct?

The state's documents?

A I'm not sure they've been entered. I expect they have been. They've certainly been referred to in the complaint.

MR. KREBS: Okay. That's all I have.

MR. RADELL: I have no further questions.

THE COURT: Mr. Cooper, with respect to

Complainant's 31 which we've been discussing, you said

you were very well familiar with the signature of

Mr. Boyd. However, going through these documents,

there look to me to be a couple of different signatures

for Brian Boyd.

THE WITNESS: Yes.

THE COURT: And I'm wondering which of these is the one with which you are very familiar, if you know. You may not know what accounts for these two differences, but if you do, I could use some information on it.

THE WITNESS: Yes, I have noted in going through and looking carefully and matching the hazardous waste manifest numbers and so on that Mr. Boyd, Brian Boyd, is usually in capital letters, Brian Boyd. On perhaps at least two occasions I see it

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1	is written out.
2	THE COURT: I am showing you manifest number
3	11126, March 18, 1982, where it really is written out.
4	That appears to be a signature.
5	THE WITNESS: Yes.
6	THE COURT: But you don't know anything about
7	this?
8	THE WITNESS: No, I don't really know the
9	procedure at Gary Development and how this was handled,
10	but I did note that there was a difference, Your Honor.
11	THE COURT: Thank you. If there is nothing
12	further of this witness
L 3	MR. RADELL: No.
L4	THE COURT: Then you're excused Mr. Cooper.
15	Thank you.
L6	THE WITNESS: Thank you.
L7	(Whereupon, the witness was
L8	excused.)
L9	THE COURT: Mr. Krebs, has your witness
20	arrived?
21	MR. KREBS: Yes, I believe he has. We would
22	call Mr. Dan McArtle to the stand. He's here.
23	

1	Whereupon,
2	DAN MC ARTLE
3	called as a witness herein, having been duly sworn and
4	having testified, was examined and testified as
5	follows:
6	DIRECT EXAMINATION
7	BY MR. KREBS:
8	Q Would you please state your name for the
9	record?
10	A Danny R. McArtle, R for Richard.
11	Q Okay. Mr. McArtle, can you tell us where
12	you're employed?
13	A I'm a self-employed carpenter or handling.
14	Q And what is the address of your business?
15	A 524 West Chicago Avenue, East Chicago,
16	Indiana.
17	Q Okay. And Mr. McArtle, have you previously
18	been involved with the company that was known as
19	Industrial Disposal Corporation?
20	A Yes sir.
21	Q Okay. And can you tell us just briefly what
22	your relationship with that corporation was?
23	A I started out as a truck driver and then a
24	foreman before the company was sold.

1	Q Okay. And when was the company sold
2	approximately?
3	A It was sold a couple times. First time I
4	think it was '78, the second time was '82.
5	Q Okay. During the time that you were with
6	that company, was there ever an employee of Marty
7	Lope z?
8	VOICE: Mickey Lopez.
9	MR. KREBS: Mickey Lopez, I'm sorry.
10	THE WITNESS: Yes sir.
11	BY MR. KREBS:
12	Q Okay. And what was that person's job?
13	A Truck driver.
14	Q Truck driver?
15	A Uh-huh.
16	MR. KREBS: Okay. I'm going to hand you, and
17	there's many documents here, and I know you've not been
18	in this case, I'm going to hand you some documents.
19	These are copies that were provided to me from U.S.
20	EPA. And specifically these I believe for the record
21	had been introduced previously back in 1987 as
22	Complainant's Exhibit 23.
23	Now I would like to point out in case there's

some total mock line up here that the 23 I have, Your

Honor, is the one that was provided to me in the discovery process with the change of exhibits. And as I recall, when 23 was admitted, there may have been a few pages taken out because of being illegible that may be in my copy, and I don't think we have the one here in the courtroom which was actually admitted, so I'm going to have to use this one to discuss this with the witness. So there may be a little mis-match, but it's not intentional if it happened.

23 that the Government had admitted in this case, and there were many—they were forms, they're all forms, they all appear to be them same form. I haven't counted them all. But at the top they say, "Industrial Disposal Corporation, 2000 Gary Avenue, East Chicago, Indiana, 46312," and they're entitled, "Hazardous Waste Tracking Form" and they have like four different blocks.

BY MR. KREBS:

- Q Are you familiar with this form?
- 20 A Yes.

- Q Regardless of the information on it, this
 form itself?
- 23 A Yes sir.
 - Q Okay. And who developed this form?

	919
1	A I did.
2	Q Okay. You did this yourself?
3	A Uh-huh.
4	Q Can you tell us approximately when this form
5	was developed? What year?
6	A Around 1980, '78, '80, something like that.
7	Q '78 to '80, somewhere in that vicinity?
8	Okay. Specifically was this form developed by you on
9	behalf of Industrial Disposal to track, it says it's a
10	waste tracking form, to track what is now known as
11	Resource Conservation Recovery Act, RCRA waste, or was
12	it meant to track some other kind of waste?
13	A It was actually just meant to track the waste
14	of our customers for like further down the road if
15	something happened you know
16	Q (interrupting) Okay.
17	Aso we're sure where it went, you know.
18	Q Okay.
19	A Basically just about everything we haul had
20	that little piece of paper on it.
21	Q Okay. So you used this almost for everything
22	you hauled?
23	A Uh-huh.
24	Q For RCRA hazardous and other waste?

A Right.

Q Okay. During that time did any waste hauled by Industrial, was it classified as hazardous by the State of Indiana now known as special, even though it may not have been RCRA waste?

A That's hard to say 'cause all we would ask to state where they're going, they'd give us a letter, you know, so I couldn't say whether they'd classified it as a--

Q Okay. I want to ask you a few questions about these documents, Dan, that are in the part of Exhibit 23. And there's a group that I have put together because they all appeared to be fairly similar, and these have at the top, "U.S.S. Lead Refinery, Inc.". And for counsel, I guess these don't have it, this one is numbered, it starts 277, the number in the middle of the page on the left hand side. And this one discusses gel calcium sulphate and then has Industrial Disposal Corporation and it also has at the bottom, "disposal site identification: Gary Development Landfill."

In the top, under special handling instructions it says "none". What does that mean to you when it says none?

	921
1	A That would mean that the state didn't have
2	any restrictions on it.
3	Q So there were no restrictions by the State of
4	Indiana on the waste?
5	A No sir.
6	Q How about from EPA?
7	A Generally we would rely on the state to tell
8	us what to do. We very seldom went to the
9	Q To EPA directly?
10	A I think the state guidelines were always as
11	good as the feds here; better.
12	Q Okay. This one's dated, is it correct,
13	June 19th, '81, when it is signed by somebody, I guess
14	from U.S.S. Lead?
15	A Uh-huh. Yes sir.
16	Q Now I want you to look at the next, basically
17	glance through the next, I think it's twenty-eight
18	pages. You can flip those if you will. And is it
19	correct that each one of those, up where it talks about
20	special handling, has the words "none" either typed or
21	printed in there?
22	(Pause.)
23	A Yes sir. All of them have "none" on them.

Okay. And that would be through number 288,

correct?

A Yes sir.

Q You looked through? Now you mentioned previously that the state would look at certain wastes and one of the wastes that's discussed in here, and I'll point it out to you sir, is calcium sulphate, correct?

A Yes sir.

Q Yet several of these discussed that you just looked at calcium sulphate is on 253, 292, on 291, on 290, et cetera. Many of those are calcium sulphate.

I'd like to hand you here a original copy, apparently, of a letter which is State of Indiana, State Board of Health, and it is signed by Roland P. Dove, director, Division of Sanitary Engineering. It shows a copy going to Industrial Disposal, Gary Development, Lake County Health Department, and Gary City Health Department, and is—says it's, "regarding disposal of calcium sulphate". And the letter is actually addressed to U.S.S. Lead Refinery, Inc. Does that type of letter, or that letter itself, look familiar to you?

A Yes sir.

Q And what do you consider this letter to be,

1 in your own words?

A It's given Mr. Hagen permission to accept the material.

Q Mr. Hagen permission to accept the material.

Does it indeed show a copy going to Industrial

Disposal?

- A Yes sir, it does.
- Q And why would that be so?

A Well we would also ask where to take the material. In other words, if we would use Mr. Hagen's landfill or Wheeler or Fort Wayne, Indiana, we would go down to Fort Morry's (ph) Landfill, Christian County Landfill, wherever he told us to take it, that's where we go.

- Q Okay. And if you received, when you were with Industrial Disposal, did you receive other similar letters to this on other waste streams from the State of Indiana?
 - A Yes sir.
- Q Okay. Now do you know who the Division of Sanitary Engineering was? State Board of Health. Does that have any relationship to the environment?
 - A I would imagine.
 - Q Okay. Do you know whether there was an

Environmental Management Board in Indiana during 1977?

To your knowledge.

A I really couldn't--

Q Okay. I'd like you to look at, and this may take a little bit of time, there's other types of wastes that's discussed here. The next one, and I can't read my copy. The invoice number has been punched out, but it's the one after 288, this tracking form has a different kind of waste and it's called, "cubic yards of battery cases".

A Yes sir.

Q And that also indicates "none" as far as special handling in the upper right hand corner?

A Right.

Q The next one is "yards of battery cases" and also has "none" in the upper right hand corner. It has a date of November 21, '80?

A Yes sir.

Q And the next one we're back to, it says, "a cubic yard solid calcium sulphate", and again has "none" in the upper right hand corner.

A Yes sir.

Q And I can't see the manifest number on that. The next one, we're back to "battery cases", is that

1	correct?
2	A Yes sir.
3	Q This one is dated November 20, 1980. Special
4	Handling, what does this form show?
5	A "None."
6	Q Now, the next one is number 8664, as a
7	tracking form invoice. And again it's correct, it says
8	"U.S. Lead Refinery". It is a different waste
9	evidently. It says, "A one to twenty" I believe it is,
10	"cubic yard box of rubber battery chips"?
11	A Yes sir.
12	Q And it shows Gary Development being the
13	facility it was taken to.
14	A Uh-huh.
15	Q And what did it say up in item two under
16	special handling?
17	A It says, "Hazardous waste solid NOS-ID 9189
18	Lead".
19	Q Okay. Is there any EPA RCRA type of number
20	on there to your knowledge?
21	A I would guess that would be a number for
22	U.S.S. Lead. I don't know if it would be
23	Q (interrupting) For U.S.S. Lead?

Yeah.

Α

	320
1	Q Okay. They would have put that on there?
2	A Yes sir.
3	Q They would have put "NOS" on there? Not your
4	company?
5	A No.
6	Q Now I realize there are many of these here,
7	but could you look through at least some of these of
8	the nextthere's many forms herebut up in the upper
9	right hand corner, and see if you see anything
10	different up in there on your form under special
11	handling other than "NOS ID9189 Lead".
12	(Pause.)
13	A The only one I find here it says, "ID NA".
14	Q Okay. You're looking at number 2456, the
15	number down here.
16	A Yes sir.
17	Q And it says what?
18	A "NOS ID", then it says, "NA 9189 Lead".
19	Q So it has an "NA" before the letters 9189?
20	A Yes sir.
21	Q That's different than the other ones you
22	looked over?
23	A Yes sir.
24	Q Okay. Perhaps you continue, you're almost

- done. I told you we weren't going to have you do all of them, but you're doing such a good job.
 - A Again we find on ticket number 2458, it has the same thing, "NA".
- Q It has an "NA" in addition to the other description?
 - A "NOS ID NA9189 Lead".
- Q Okay.

- A Also a ticket number 2442. "NOS ID NA", which I don't know what the "NA" stands for.
- Ticket number 2457 is the same. Ticket

 number 2453 is the same, "NOS ID NA9189 Lead." 2451,

 2452, 2461, 2446, 2445, 2444, 2443, 2459, 2460.
- O And that's the end.
- 15 A Yes sir.
 - Q Okay. So the ones you'd just read the numbers off of have the capitals "NA" in addition to the other information, is that correct?
 - A Yes sir.
 - Q Is that what you were identifying, so the record is clear on that? Those, the ones that have the "NA", most of those appear to have a 1982 date on them, if they have a date.
 - A Yes sir. They all look like they were signed

	928
1	by the same guy, too, so it might have been
2	Q Okay. Do you know what that name is?
3	John Ballereck (ph), B-A-L-something, right?
4	A Uh-huh.
5	Q B-A-L-O-C-I-K.
6	A B-A-L-O-C-I-K, right.
7	Q Right. And would it be correct from looking
8	at these, at least going over them
9	A (interrupting) It's all '82.
10	Qthat they're '82, the ones that have "NAs"
11	on them.
12	A Yes sir.
13	Q Or they don't have a date. Some of them
14	don't have a date on them.
15	A Or they don't have a date, right.
16	Q Okay. Now the fact that thesethat this
17	form that you developed said right at the top,
18	"Hazardous Waste Tracking Form", I think what you're
19	saying is that you used or Industrial used this for all
20	the waste
21	A (interrupting) Yes.
22	Qduring the period this form was used that
23	they transported, regardless of whether it was

hazardous or non-hazardous?

A Yes sir.

Q Okay. So the fact that it says "Hazardous Tracking Form", that doesn't mean that you defined the waste as hazardous or determined yourself that it is hazardous, is that correct?

A What had happened was we had the forms printed and later on we changed it just for--it said, "Waste Tracking Form" because it is kind of misleading because it says "Hazardous". We weren't really obligated at that time to have such a form; we did it to protect ourselves basically of saying, you know, later on down the line like the state says we can go here, so we documented every load that went to each individual place.

Q And I think I may have asked you part of this--could you then mark one of these.

(Whereupon, Respondent's Exhibit 18 was marked for identification.)

BY MR. KREBS:

Q But in your handling of waste during past years, has there been a difference of definition at times between the state and EPA as to hazardous versus special waste; waste that is regulated by the state,

but not under the Resource Conservation and Recovery Act?

A Say that one more time.

- Q In other words, is there a waste in Indiana, that as a transporter, you would feel that you have to have approval from the state to dispose of it at a particular facility, even though you know it's not a RCRA hazardous waste; that you still need permission for disposal?
- A We would basically get permission on just about everything we haul.
 - Q Okay. From the State of Indiana?
- A Right. From the state. Very seldom--I can't even remember ever going to the region buyer.

 Basically the state were the federal guidelines, so they were always more stringent than the federal government's so the federal government's -- that's okay.
- Q Okay. I'm going to hand you back again this letter which we now marked as Exhibit 18, the letter of March 14, 1977 to U.S.S.--
 - A Lead.
- Q I'm sorry, to U.S.S. Lead, with the copies showing going to Industrial as well as Gary Land Development. Would this be a letter giving approval,

	931
1	in your opinion, for your company to take calcium
2	sulphate waste and dispose of it at Gary Development?
3	A Yes sir.
4	MR. KREBS: At this time I'd offer into
5	evidence Respondent's Exhibit 18.
6	MR. RADELL: May I look at the original?
7	MR. KREBS: The page is ripped.
8	MR. RADELL: I have no objections.
9	THE COURT: Number 18 is received.
10	(Whereupon, Respondent's
11	Exhibit 18 was received into
12	the record as evidence.)
13	MR. KREBS: That's all the questions we have
14	of this witness.
15	THE COURT: Mr. Radell?
16	MR. RADELL: Yes.
17	CROSS-EXAMINATION
18	BY MR. RADELL:
19	Q Mr. McArtle, you testified that you developed
20	this form?
21	A Yes sir.
22	Q Yes. And who filled in the boxes, the
23	individual boxes? Did your company, the transporter,
24	fill them in or did the generator or who filled in

	932
1	the
2	A (interrupting) The generator would fill it
3	in.
4	Q The generator did. I'm going to show you
5	some of this. Are these basically the same forms that
6	Mr. Krebs was just showing you?
7	A Okay.
8	Q Do you know whywell in box 2, under
9	"special handling instructions, if any" does itwhat
10	does it say in there for this manifest number 2449?
11	A "Hazardous waste solid, NOS ID NA9189 Lead
12	D008".
13	Q Do you know what "D008" stands for?
14	A No sir, I don't. Unless that stands for door
15	number 8 or something.
16	Q Okay. Do you know why under "special
17	handling instructions" the words, "hazardous waste
18	solid" would appear? What did that signify to you as a
19	transporter?
20	A Well it would signify here it was a hazardous
21	waste solid.

differently than other wastes, or--

And that it was supposed to be dealt with any

That would be according to the letter of the

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l landfill would just co-dispose.

- Q Okay. Okay. These other manifests that you had previously discussed with Mr. Krebs, the ones that only say ID9189 Lead--
 - A (interrupting) Right.
 - Q --do you know why those say "Lead" in special handling instructions?
 - A I have no idea. Because again, the people, the generator would fill this out and of course this here and I think--I really can't--I think they have that stamp made too.
 - O Okay. This stamp "Ed Peterson" ---
 - A (interrupting) I can't read it from--
- Q (interrupting) --description and quantity of waste shipment.
 - A Yeah, but I can't read it. Something,
 Department of Transportation.
 - Q Thanks. Okay. Mr. McArtle, do you have any background in chemistry or any sort of waste analysis procedures?
 - A No sir.
 - Q Okay. Are you aware whether or not these wastes from U.S.S. Lead have actually been tested or analyzed to determine whether they're not that

	934
1	ha za rdous?
2	A Again, we relied on the State Board of Health
3	to
4	Q Okay
5	A (interrupting)our customer would do that
6	themselves. In other words, like U.S.S. Lead would
7	call the State Board of Health, and I imagine they
8	would ask for some kind of a analysis and then we would
9	say, well where can we go? And then they would send us
10	back the letter which you have there in your hand.
11	Q So have you ever seen or reviewed any
12	analyses of the waste generator at U.S.S. Lead?
13	A No, I don't believe so.
14	Q Okay. Have you ever had any discussions with
15	Mr. Ted Warner of the Indiana Department of
16	Environmental Management concerning the wastes from
17	U.S.S. Lead?
18	A Ted Warner?
19	Q Yeah.
20	A It doesn't ring a bell.
21	MR. RADELL: Okay. I have no further
22	questions.
23	MR. KREBS: We have no redirect of this

24

witness.

935 1 THE COURT: Alright. Let's take about a five 2 minute recess, shall we? And during that time, Mr. Radell, I would like to see what has been admitted, 3 4 it's Complainant's 23, yes? 5 MR. RADELL: Okay. THE COURT: Alright. In recess for 10 6 7 minutes. (Whereupon, a short recess was 8 9 taken.)

THE COURT: Back on the record. Now with respect to number 23 and number 33, it immediately became apparent to me why these documents did not look familiar. It's quite simply that number 33 has been copied horizontally on the paper and number 23 was copied vertically on the paper. And they certainly are exactly the same thing, but they look a lot different.

I'm going to admit them, but I have all of the problems I had with these the first time. Nevertheless, because they are identical, I will admit them.

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1	(Whereupon, Claimant's Exhibit
2	23 and Claimant's Exhibit 33,
3	having been previously marked
4	for identification, were
5	received into the record as
6	evidence.)
7	THE COURT: is there anything further on
8	rebuttal, Mr. Radell?
9	MR. RADELL: Yes we would like toactually I
10	have to tell my case in chief and we had rebuttal. Now
11	we would like to recall Larry Hagen to ask him some
12	questions regarding the exhibits that were admitted
13	into evidence today, being 31 and 33.
14	THE COURT: Mr. Hagen? The reporter will
15	swear the witness.
16	Whereupon,
17	LAWRENCE HAGEN,
18	having been previously duly sworn, was recalled as a
19	witness herein and was further examined and testified
20	as follows:
21	BY MR. KREBS:
22	Q Mr. Hagen, I first want to address
23	Complainant's Exhibit 33, which was just admitted by
24	Judge Greene, and I was looking back in the transcript

when you testified previously, which is Volume III dated September 11, 1987, and during the cross-examination by EPA Region V counsel, you were asked some questions regarding U.S.S. Lead waste and to refresh your recollection, I want to kind of start there, so I'd like to read just a couple of the questions and answers.

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This is on page 761 and this was a question by opposing counsel. The question was on line 17, "Has Gary Development Company ever received any manifests from U.S.S. Lead? Answer: No. Ouestion: Development Company had received any manifests from U.S.S. Lead, would you be aware of it? Answer: would think so, yes sir. Question: Because prior to their destruction in the fire, you wouldn't be familiar with the manifests in your -- answer. I've seen the incoming tickets, our tickets on waste, was just, you know, a lot of times the hauler would identify where the material was coming from and it would say U.S. Lead. But that doesn't necessarily mean it was from any, you know, they had plant clean up in U.S. Lead. Ouestion: I'm sorry, it doesn't necessarily mean what? Answer: Well it was definitely not a manifested load, but it may have said U.S. Lead on their waste tracking

form type thing. Question: Provided to you by the transporter or -- Answer: The hauler. Question: By the hauler? Answer: Yes. Question: And did you retain copies of those? Answer: No, we just signed it. It didn't--they had signatures on it. U.S. Reduction I believe used a similar system in their aluminum oxide dust." Now the next question on page 763 has to do with American Chemical Services, so I'll stop there.

Now based upon that and your answers that you gave to opposing counsel back in September of '87 that I just read to you, is that still your testimony based upon everything you've heard in this case today?

A Yes it is.

- O Okay. So--and do you believe that's correct.
- A Yes, I believe that's correct.
- Q Why are you saying that the U.S.S. Lead waste was not manifested to you, but was--that did come to you on tracker forms.

A The forms that they have submitted and that I've looked at are a form of waste tracking form for, excuse me, special waste, which almost every load that Industrial Disposal hauled to us from whoever and wherever, from the many different companies they

serviced, they brought a waste tracking form, very similar to that or identical to that, I can't remember, which our people signed and it was like Dan McArtle had said, it was an assurance thing for them to their customer that their waste had been disposed of in a permitted landfill.

Q Okay.

A And everything we received from U.S. Lead I believe was on those copies and we accepted that as a non-RCRA hazardous, but as a special waste under authority or special waste definition from the State of Indiana.

- Q Now Mr. McArtle identified a letter from the Indiana State Board of Health dated 1977, which is introduced into evidence I believe as Respondent's Exhibit 18, that also showed a copy going to Gary Development on the calcium sulphate waste.
 - A That's correct.
 - Q Are you familiar with that letter?
- A That was my copy, yes.
- Q The original that we copied was from your files?
- 23 A That's correct.
- Q Okay. And what do you consider that letter

to be in your opinion?

A Authority for us to accept that waste as a special, which the state had a category called hazardous waste. It was not "hazardous", well at that point I--even after RCRA, they had waste that was considered a special or hazardous waste under state laws, but hazardous under state law was not hazardous under RCRA law.

Q Okay.

A We accepted that waste as a special waste under a waste tracking form.

- Q In fact, previously in this case you discussed the state revoking or suspending some of Gary's approvals to take, let's call it special Indiana hazardous wastes.
 - A Certain special waste, yes sir, they did.
- Q Okay. And that's the same--or similar type letter as Respondent's Exhibit 18?
 - A If--I'm not sure which one was 18.
- Q A similar type waste or regulated waste as in Respondent's 18 which are coined "special waste".
- 22 A But the term Respondent's 18, 18 was that
 23 letter from--
 - THE COURT: I'm showing you--

(interrupting) I'm sorry. 1 THE WITNESS: 2 THE COURT: -- Exhibit 18 in evidence. 3 THE WITNESS: Yes sir, that's correct. BY MR. KREBS: 4 5 Now at the last hearing date we did receive 0 several copies from EPA counsel regarding forms that 6 were called "Hazardous Waste Manifests, Jones & 7 Laughlin Steel Corporation" regarding, although some of 8 9 them don't say, tar decanter waste? Yes, I'm familiar. 10 11 Okay. And you went through, at least the 12 ones you received back in September of '87 at the last 13 day of the hearing during that week. 14 Yes, I segregated them. (interrupting) 15 Okay. Getting back to this place, I want to 16 refresh your recollection if I could. I think this is a 17 question I asked you in direct examination originally. 18 Yes it is. It's before cross. And the question was, 19 "Now have you personally, have you personally, or do 20 you ever recall yourself signing manifests 21 acknowledging receipt to the best of your recollection?

I have other important things to do."

still, to the best of your recollection, that you did

No, I don't spend any time in the ticket

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23

24

Answer:

booth.

942 not spend any time in the ticket booth? 1 2 That's correct. I almost never was in a ticket booth. At the end of the day, they would bring 3 the tickets from the ticket facility into my office and 4 5 I would process the tickets. Now out of all the manifest forms on Q 6 7 this tar decanter waste, which were given to us in 1987, was there anyone, and I think you may have 8 already testified to this, that had your signature, or 9 appears to be your signature? 10 There was one on there that had my signature. 11 A Okay. And that was during April of '81? 12 Q If that's what it says. Α 13 14 Let me hand my copy to you. Q That's correct. 15 Α 16 Q Okay. Which number is it? 17 THE COURT: 18 THE WITNESS: 01816. 19 THE COURT: Thank you. BY MR. KREBS: 20 21 0 Did you find any other of those numerous 22 manifests that were signed by you?

Okay. I'd like to hand you two manifests.

No, I did not.

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Q

One is 0832, the other has a number 12752, the first is dated December 7th, '81, the second is dated October 1, '81 at the bottom.

And both have a signature of apparently the same individual and you've looked at these copies?

A Yes I have.

- Q Do you recognize the name of that individual at the bottom signing as receiving that waste?
 - A No, I do not.
- Q Is that an employee of yours, to the best of your--or Gary Development's--
- A To the best of my knowledge, we never had an employee by that name.
 - Q Can you figure out what that name is?
- A Well I made an attempt through this time, and at one point it looks like B-U-T-D-O-N, and the other one looks like B-R-A-D-D-A-N, but I've never heard of any--I made a note, "Jack somebody, unknown at this time".
- Q Okay. Both of these have--somebody in these forms in a line on part B, the second line there is transporter number, ID number and they're scratched out, correct?
 - A That's correct, both of those.

I want to hand you manifest number 12309, O with a date at the bottom of August 17, '81, 12750, August 20th, '81, 01822, May 18th, '81, 01821, May 15th, '81, and 02080, the date of May 26th, '87, and have you looked at the signatures or whatever is on the bottom of those where it's supposed to be a signature, and let me ask you if you can identify any of those signatures or an individual who would have such a name.

A The first three, which are numbers 12309, 12750, and 01822 I cannot identify the signatures or don't know who they are. The next one is number 01821 and 02080, and it appears to be M--maybe C--Lopez on one and M. Lopez on the other, and that was a driver from Industrial Disposal Company.

Q I'd like to now hand you another group of these that you have segregated, these manifests with J&L, and these all at the bottom on the left hand side, well I think all of them, have a name which apparently is printed of Brian Boyd. The numbers are on the manifest 11125, March 8, '82, 02072, May 7, '81, 02073, May 18, '81, 01823, this one apparently does not have a date at the bottom, 03197, 6/26/81, 02078, 7/1/81, 0832, 12/3/81, 12947, October, it looks like the 15th,

'81, and 08322, which does not have a date at the bottom of receipt by Gary. And I'll ask you, on those, have you determined whether or not the printing on those is printing by Mr. Brian Boyd?

A I myself could not vouch for that. I still had contact with this employee and I gave these to Brian Boyd and asked them, because some of these were written and some were printed, and I asked him, did he write his name sometimes and print it others, and were these ones that were printed his signature, and he said no.

Q Okay.

- A He said he always wrote his name.
- Q Did Mr. Boyd write out or print out for you his name on a--
 - A (interrupting) Yes.
 - Q --little sticker piece of yellow paper here?
 - A Yes he did, on this piece of paper, he printed his name the way, if he was going to print it, he would print it.
 - Q Now another group of these hazardous waste manifests that were provided to us in September of '83, I want to hand you, because you segregated these out also, and you segregated these out as being illegible.

Okay. And what do you mean by that?

A Well a lot of the times the form was illegible or the signature was illegible.

Q Okay. So did that mean that you felt that you really could not check these out because the copies you had were not good enough to do so?

A That's correct.

Q Okay. Can you just go through, and just forget the date on these, but just at the bottom, would you read into the record the number of the manifest for each one that you felt that you could not check out due to the poor quality of the copy provided to you?

A 01824, 0207 and it looks like a 9, it's cut off. 12308, 12307, 12306, 03069, 12303, looks like 08568, but the bottom of the numbers are cut off on the copy, 08566, again bottom numbers cut off and the right side cut off, it looks like 08769, 08771, 08773, 08774, 08772, 08775, 11128, 11126, 0832 and the last number is missing, or part of it's there, but I can't identify it. 11127. That's all.

Q Okay. Now there also were additional copies provided to Gary Development that had missing information as far as the material accepted, is that correct, such as 12305?

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1	A	That's correct.
2	Q	It has a name and it has a printing of a
3	Brian Boy	d on it, but it doesn't say at the top
4	A	(interrupting) It doesn't say what it is or
5	where it'	s from.
6	Q	Is that also true of number 12945?
7	A	That's correct.
8	Q	And 12946?
9	A	That's correct.
10	Q	Okay. So this isand here's another, 01825.
11	A	That's correct.
12	Q	03200
13	A	Yes. It's blank.
14	Q	What02077. It's blank at the top.
15	A	It's blank at the top and the signature at
16	the botto	m is totally unreadable.
17	Q	It has a signature for the transporter?
18	A	It looks like, yes.
19	Q	Would there be any reason for Gary
20	Developme	nt toor Mr. Boyd on your behalf, I guess
21	these are	in Mr. Boyd's, some of them are signatures,
22	some are	printed.

Would there be any reason for Mr. Boyd to

Uh-huh.

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Q

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sign that Gary Development received waste on a manifest that doesn't even describe what the waste is?

No, there would be no reason, but we didn't get the top part of the form. We signed the bottom part of those forms and we presumed they were waste tracking forms because every load that came into that landfill hauled from industrial sources all came with a waste tracking form. And I can name five or six companies that this was from. And we were presented a bottom part of a form as a waste tracking form, he signed them, but it--until this procedure started, and when I showed these forms to Brian Boyd that indicate tar decanter sludge, I also showed these forms to my son, who you have his signature on there, everyone was in amazement and said what is tar decanter sludge, because they had never seen the top part of that form; all they'd seen is the bottom part.

Q This form that you marked as illegible, for example, which is---has the manifest number, I guess it has two numbers at the bottom. It has document number 7302 then it has a bigger number 01824, there's a date at the bottom on this particular one of May 28, '81, correct?

A That's correct.

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1	Q Okay. And is it apparent to you on this copy
2	at least that you received, that there has been a
3	division between the top part A and part B of this
4	form?
5	A Certainly. The topyou had two pieces laid
6	in a copier and copied. Part B is even crooked on the
7	page here.
8	Q So those would not, in your opinion, be
9	attached?
10	A They were not attached, no.
11	Q Does the next document appear also to have
12	been two separate documents put on a copying machine,
13	02079?
14	A It appears so. You can see the line here
15	where the end of the one copy and the beginning of
16	another.
17	Q And how about the next document, 12308?
18	A Yes. You can see the line where the two
19	documents were separated, laid on a copier, and copied
20	as one.
21	Q Part A and Part B.
22	A That's correct.
23	Q Is that because they aren't put down exactly
24	where they would be together?

A I would think so, yes.

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MR. KREBS: I wanted to offer into evidence what has now been marked as Respondent's Exhibit 19.

(Whereupon, Respondent's Exhibit 19 was marked for identification.)

MR. KREBS: It is—it's been identified, but not as 19 by the witness. They are the documents which he identified as being a printed, signature I guess, a printed signature by Brian Boyd, which has on several manifests which were identified and has attached to it what Mr. Hagen has stated is the actual printed signature of Mr. Brian Boyd.

THE COURT: Have you shown this to--

MR. KREBS: (interrupting) Yes.

THE COURT: --Mr. Radell?

MR. RADELL: Yeah, I'm going to object to the admission of at least the attachment, the yellow sticker. At least it appears as if there are two different writings on there, fairly two different pens were used, and it appears to have been written by two different people, the writing on that little yellow sticker. There is no actual signature by Mr. Boyd, so we don't really know if that is—he indeed did write

that document. There is no certification, it's on no letterhead. It's just a little yellow Post-it with some writing on it by, apparently by a couple different people. So I'm going to object to the admission of that.

MR. KREBS: Maybe we could play that up. BY MR. KREBS:

Q On the yellow Post-it, he is correct, there are two printings of Brian Boyd.

A That's correct.

Q On the top it says, "Brian Boyd" printed. Who printed this out?

A I did. I--first I showed the forms to
Brian Boyd, asked him, did he print this or did he
write this or did he normally write everything or print
everything. He said he normally wrote his name on all
waste tracking forms. Then I made the notation here,
"Brian Boyd, printed, not his printing" and then before
I left I said, "would you print your name then if you
were going to print it", and that's what the blue ink
is on there. He printed that.

Q Okay. So the bottom where it says, "Brian Boyd", it's in blue ink, that's printed by Brian Boyd--

1	A (interrupting) That was printed by
2	Brian Boyd in front of me, yes.
3	Q You saw him do that?
4	A Yes I did.
5	Q Okay.
6	MR. KREBS: We would re-offer into evidence
7	Respondent's Exhibit 19.
8	THE COURT: May I see it please?
9	MR. KREBS: Certainly.
10	THE COURT: Alright. So Mr. Hagen, the first
11	two lines which appear to be in ball point are your
12	notes?
13	THE WITNESS: In black, yes ma'am.
14	THE COURT: And the blue is Mr. Boyd's
15	printing as though he were going to print it. Alright.
16	I will receive number 19 with the attached Post-it
17	stapled in the corner.
18	(Whereupon, Respondent's
19	Exhibit 19 was received into
20	the record as evidence.)
21	MR. RADELL: May I obtain a copy of that
22	before this proceeding is over?
23	THE COURT: Yes indeed. Mr. Krebs, you will
24	see to that, please.

BY MR. KREBS:

Q I want to go back to the document that you said your signature appears on, L. Hagen, and the number is 01816, with the date of 4/13/81. Is the printing 4/13/81 your printing?

A Yes it is.

Q Okay. Now looking at this form as a whole, with again, part A and part B, if you look at that carefully, can you determine whether or not that is one piece of paper or whether it is two pieces of paper that have been put down on a copying machine to make this photocopy?

A I believe it to be two pieces of paper put down. You can see the separating line on the bottom where the two pieces were put together.

- Q Where do you see that? Point it out.
- 17 A Right--
 - Q (interrupting) Describe it on the record.

A --at the--above where it says part B, it says, "transporter #1 signature", and then there's a little thing on the sid that says, "UE1" and right across from it, if you follow across, there's a partially, you might call it a perforated line, where it looks like there's the two pieces were put together

1	there

Q Okay. Do you ever recall to the best of your recollection, seeing the top part, the part A of this form 01816?

A No sir, I did not see these until they were given here in court.

MR. KREBS: That's all the questions I have of this witness.

THE COURT: Mr. Radell?

MR. RADELL: Yes, just a moment.

CROSS-EXAMINATION

BY MR. RADELL:

Q Mr. Hagen, regarding the manifest forms which you've just discussed with Mr. Krebs, the one with your signature at the bottom, the ones that you just testified they appear to be two pieces of paper placed together on the same page.

A Yes.

Q Could you please, the bottom section that's marked part B, does it appear as if these two forms may have been attached at one point?

- A I don't know. How would I tell that?
- Q Well could you read what it says at the top of--

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1	A (interrupting) Oh, tear at perforation.
2	Okay.
3	Q Mr. Hagen, have you ever reviewed any
4	analyses of the waste generated by U.S.S. Lead or J &
5	Laughlin?
6	A Reviewed when, sir?
7	Q Anyexcuse me?
8	A Reviewed when?
9	Q Whenwell at the time that Gary Development
10	Company allegedly received those wastes in thethat
11	would be in the early 1980s.
12	A No. There was never anyon U.S. Lead there
13	was never anything submitted to us because we accepted
14	the stuff as a non-hazardous waste, as a special waste.
15	Q And what about for Jones & Laughlin Steel?
16	A On which waste stream, sir? That KO87?
17	Q On either theyeah, the KO87.
18	A No, never.
19	Q Okay.
20	A But you asked me a question that I just
21	answered that you said did I review the analysis on it.
22	At this point, we had never heard the word "tar
23	decanter sludge".

24

Uh-huh. What about for the battery chips and

956 the calcium sulphate sludge from U.S.S. Lead? 1 I had seen the documents that we have our 2 people's signature on that said battery chips and 3 calcium sulphate, but I had never seen an analysis on 4 5 it. Okay. I'd like to show you some of the 6 Q 7 manifests from Industrial Disposal Corporation regarding U.S.S. Lead. To you -- could you explain what, 8 9 if anything, the words "hazardous waste solid" or "Lead D008" mean to you as they appear in the box marked, 10 11 "special handling instructions"? 12 As they appear to me now, or in 1980? 0 Well both. 13 Okay. Now I would know that D008 means the 14 15 government's definition of something that contains 16 Back then I don't think I would have known that. 17 It doesn't say what kind, what percentage of lead or 18 anything else. It just said it contains lead. 19 O Okay. Thank you. 20 (Pause.) 21 MR. RADELL: I think we have no further 22 questions.

MR. KREBS: (interrupting) I have no

Mr. Krebs, anything --

THE COURT:

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1	redirect of this witness.
2	THE COURT: You're excused, Mr. Hagen, thank
3	you.
4	(Whereupon, the witness was
5	excused.)
6	THE COURT: Anything further on your case,
7	Mr. Krebs?
8	MR. KREBS: We have nothing further. We
9	would rest our case at this time, Your Honor.
10	THE COURT: Mr. Radell, any further
11	MR. RADELL: I had a brief closing statement.
12	I have no further evidence, though.
13	THE COURT: Alright. Now if the parties wish
14	to make closing statements, I will certainly be pleased
15	to hear it. If they wish to brief the matter, I will
16	be happy to receive briefs. What is your pleasure,
17	counsel? Mr. Radell?
18	MR. RADELL: I'm prepared to make a brief
19	closing statement and I don't really believe that a
20	post-hearing brief is necessary based upon the
21	evidence, but if the Court or opposing counsel believes
22	it's necessary, I'd be happy to comply.
23	MR. KREBS: I think that my opinion is, Your

Honor, that although I love to talk, as many lawyers

do, there's no jury here. I can make a closing argument, but I would prefer to put our arguments into brief form, which I think would give the Judge a better opportunity to look at the issues and to compare the briefs, and to make a decision on those types—using those types of documents as some type of a guidance, as opposed to merely an oral argument that's going to be transcribed in the record.

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The other thing is, which I think we're all aware of because of the period between trial days here, I think--I know it's been difficult for me to get myself reorganized and back into this case, and I think that under those circumstances, that it would be well worth it for both parties to brief their case, which is going to take some time. It's going to take some time going over the transcripts, which there's probably four or five volumes of, or will be. But because the numerous documents and the different types of waste stream; for example, J&L we've got three, in like three different types and I think it would be well worth it for both of us to brief the case. So that would be my proposal.

And I would think on time-wise, I would probably need, at least until, quite honestly, at least

until the end of January to get a brief to you because of the holidays coming up and I've got another trial set in January in a different matter that's going to go to trial, and with that, I think it's probably going to take me until the end of January to put together a good brief in this case.

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THE COURT: Well, you will have at least until the end of January because, in the first place, I don't expect to receive the transcript before Christmas. Christmas holidays being what they are, I would assume we would see it sometime during the first part of January. Therefore, a briefing by the end of January seems to me to be a little too soon. Apart from that, I'm not sure that I can get to the matter before the end of January, so you may as well have the extra time.

I think the best procedure here with respect to post-trial briefs is for us to have a brief conference after the transcript comes in, at which point we will know exactly where we stand, and we can set the brief dates with everyone's schedule in mind. I would think the time would be not less than a month after the transcript comes in, but depending upon my schedule, it might even be a little longer than that.

Now beyond that, this is one of the circumstances where both counsel get to do what they want to do. You don't see this very often.

Mr. Radell, I will--

MR. RADELL: (interrupting) Well, no, I'll waive the need to make the close.

THE COURT: Well if you have one ready, I'll be happy to hear it.

MR. RADELL: No, I don't think it'll be necessary if I'll be submitting a post-hearing brief.

THE COURT: Alright. You had the opportunity to do what you wanted to do.

MR. RADELL: I appreciate it.

THE COURT: And you waived it.

Now then, I propose to turn the exhibits that have been admitted today over to the court reporter. These documents will be transmitted to the hearing clerk in Region V when the transcript is sent in. At that point, I will call for all the original exhibits, and the decision will be based upon what was admitted into evidence, and not upon some of the xeroxed copies that we've had; not all of the copies—they don't match, it seems to me in this case, more than any case I have seen. So I will call for the original exhibits.

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1		There being nothing further, the matter is
2	adjourned	for today. Thank you.
3		MR. KREBS: Thank you.
4		(WHEREUPON, THE HEARING IN THIS MATTER WAS
5		CONCLUDED AT 11:55 A.M., TUESDAY,
6		DECEMBER 18, 1990.)
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STATE OF ILLINOIS)
) SS.
COUNTY OF C O O K)

I, ANNE I. MAZIORKA, a Notary Public within and for the County of Cook and State of Illinois do hereby certify:

That previous to the commencement of the examination of the witnesses, the witnesses were duly sworn to testify the whole truth concerning the matters herein:

That the foregoing transcript was reported to me by electronic audio sound recording, was thereafter reduced to typewriting under my personal direction and constitutes a true record of the testimony given;

That the said hearing was taken before me at the time and place specified;

That the hearing was adjourned as stated herein;

That I am not a relative or employee or attorney or counsel, not a relative or employee of such attorney or counsel for any of the parties hereto, not interested directly or indirectly in the outcome of this action.

IN WITNESS WHEREOF, I do hereunto set my hand and affix my seal of office at Chicago, Illinois, this 3167 day of CLEMBER, 1990.

"OFFICIAL SEAL"
ANNE I. MAZIORKA
Notary Public, State of Illinois
Ny Commission Expires 1/22/92

Notary Public, Cook County, IL

My Commission expires 1/22/92.



VOLUME IV

BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In the Matter of:

GARY DEVELOPMENT CO., INC.

Respondent.

Docket No. RCRA-V-W-86-R-45

Courtroom 302 Lake County Courthouse 400 Broadway Gary, Indiana

Monday, December 17, 1990

The above-entitled matter came on for further hearing, pursuant to adjournment, at 2:00 o'clock, p.m.

BEFORE:

HONORABLE J.F. GREENE

Administrative Law Judge

APPEARANCES:

On Behalf of the Complainant, U.S. Environmental Protection Agency:

MARC M. RADELL, ESQ.
U.S. Environmental Protection Agency
Region V
230 South Dearborn Street - 5CSTUB3
Chicago, Illinois 60604

On Behalf of the Respondent:

WARREN D. KREBS, ESQ.
Parr, Richey, Obremskey & Morton
121 Monument Circle - Suite 500
Indianapolis, IN 46204

AIM REPORTING SERVICE (312) 549-6351

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VOLUME IV

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TESTIMONY

WITNESSES: DIRECT CROSS REDIRECT RECROSS

DR. TERRY RONALD WEST 809 844

EXHIBITS

EXHIBIT NUMBER MARKED RECEIVED REJECTED WITHDRAWN
Respondent's:

 15
 808
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1	THE COURT: This is the matter of Gary
2	Development Company of Gary, Indiana, a continuation of
3	Docket Number RCRA-5-W-86-R-45. Let's have a
4	restatement of appearances by counsel. For the
5	Government?
6	MR. RADELL: Yes. I'm Marc Radell
7	representing the U.S. EPA.
8	THE COURT: And who is with you, Mr. Radell?
9	MR. RADELL: Mr. Jonathan Cooper of our RCRA
10	Enforcement Staff.
11	THE COURT: For Respondent?
12	MR. KREBS: For the Respondent Gary
13	Development Corporation, Inc., Warren D. Krebs with the
14	firm of Parr, Richey, Obremskey & Morton at
15	Indianapolis, Indiana. With me today at the table is
16	Larry Hagen, who is a vice-president of Gary
17	Development.
18	THE COURT: Will there be an addition to the
19	documents that we have already before we take our first
20	witness? Is there anything further by way of
21	documents, Mr. Krebs, before we take your witness? I
22	don't expect anything from you, but just in case.
23	MR. KREBS: As far as documents to mark?
24	THE COURT: Yes.

1	MR. KREBS: You meanwe might want to mark
2	just the next witness' background document. I think
3	that would be around 12. I'm not sure of that.
4	THE COURT: We had a number 14
5	MR. KREBS: (interrupting) We did?
6	THE COURT:in our earlier proceeding,
7	Mr. Krebs. This would be next in order, whatever that
8	may be. Probably 15.
9	(Whereupon Respondent's
10	Exhibit 15 was marked for
11	identification.)
12	THE COURT: Well I think we're ready for
13	Dr. West.
14	MR. KREBS: Yes.
15	THE COURT: Call your witness.
16	MR. KREBS: Respondent would call Terry West
17	please.
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1	Whereupon,
2	TERRY RONALD WEST,
3	called as a witness herein, having been duly sworn and
4	having testified, was examined and testified as
5	follows:
6	DIRECT EXAMINATION
7	BY MR. KREBS:
8	Q Would you state your name please for the
9	record?
10	A Terry Ronald West.
11	Q And Mr. West, what is your present
12	profession?
13	A I am a university professor at Purdue
14	University, West LaFayette, Indiana.
15	Q And how long have you been a professor at
16	Purdue University?
17	A I've been on the professorial staff since
18	1966 at Purdue University.
19	Q Okay. And what type of professorship do you
20	hold at the present time?
21	A I'm an associate professor in the Earth and
22	Atmospheric Sciences Department and have a joint
23	appointment with Civil Engineering.
24	Q Okay. Can you please explain briefly you

educational background as far as universities and degrees held?

A Yes. I have a bachelor's degree in Geology from Washington University in St. Louis. I also have a bachelor's degree in Geological Engineering from the same university and a master's degree in Geology; that's at Washington University. At Purdue University, I have a master of science degree in Civil Engineering and my Ph.D. is in Engineering and Geology.

- Q Are you a registered professional engineer?
- 11 A Yes I am.

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- Q And in what state are you so registered?
- 13 A In the State of Missouri.
- 14 Q That is where Washington University is?
- 15 A That is correct.
 - Q Dr. West, are you a member of any professional societies that you participate in on a regular basis?
 - A Yes I am.
 - Q Can you give us a few of those?
 - A I'm a member of the Association of
 Engineering Geologists. I've served as the chairman of
 the North Central Section, which meets in Chicago on a
 regular monthly basis, and I'm a member of the

Geological Society of America. I'm a member of the American Society of Civil Engineers, a member of the American Society for Testing and Materials, a member of the Indiana Academy of Science and also of the American Geophysical Union.

Q Regarding the Geological Society of America, have you, during the 1980s, made any presentation and publications related to sanitary landfills and their geology?

A Yes I have. On several occasions at the annual meetings, which were held typically early in November of each year, I've given papers on sanitary land fills, typically in the Indiana area.

Q Can you give us some examples of those please?

A Yes. In 1986 I gave a paper at the

San Antonio, Texas meeting and it was titled, "Fracture
in Glacial Till Related to Increased Permeability and
Concern for Sanitary Landfill Siting in Central
Indiana". In 1985 at the Geological Society of America
meeting in Orlando, Florida, I gave a paper titled,
"Engineering Geology and Ground Water Considerations
for Sanitary Landfills in Wisconsin-Aged Morainal
Deposits of Central Indiana". And in 1985 I gave a

paper for the Indiana--excuse me, Indianapolis Center for Advanced Research, and that was a paper among a group of people there at that meeting, the Conference on Groundwater Monitoring and Remedial Methods. The paper was titled, "Engineering Geology of Landfill Sites Regarding Installation of Monitoring Wells". And then also in 1986 I gave a paper at the North Central Section Meeting of the Geological Society of America and that was entitled, "Hydrogeology Problems of Solid Waste Disposal Regarding Glacial Till Stratigraphy in Indiana". So those are some of the recent papers that I've given in that particular subject.

Q Regarding your teaching at Purdue University, do you teach any courses which are specifically related to solid waste disposal?

"Geology of Sanitary Landfills". I've taught it now for I believe five years, each Fall for five years. I also teach several other courses in the field of Engineering Geology, which is, I guess, the primary description of my area of expertise, and I teach an undergraduate and several graduate courses in Engineering Geology, which relate to groundwater contamination and solid waste disposal in some fashion

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1	or another.
2	Q I'm going to hand you what was marked for
3	identification purposes as Respondent's Exhibit 15 and
4	ask if you can identify this.
5	A Yes I can identify that.
6	Q And what is it?
7	A That's my own resume or vitae in abbreviated
8	form that lists my background and specialty areas,
9	membership in professional societies and a list of
10	selected papers on several different categories.
11	Q Okay. And this was prepared by you?
12	A That is correct, yes.
13	Q Okay. And is everything in there correct to
14	the best of your recollection?
15	A As best as I know it right now, yes it is.
16	MR. KREBS: Okay. Your Honor, as opposed to
17	asking the witness other questions regarding his
18	professional background, we would instead offer into
19	evidence Respondent's Exhibit 15.
20	MR. RADELL: I have no objection.
21	THE COURT: Number 15 is accepted.
22	(Whereupon, Respondent's
23	Exhibit 15 was received into

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the record as evidence.)

24

MR. KREBS: Would you mind handing that to the Judge please?

BY MR. KREBS:

Q Dr. West, at the university, are you in charge of programs also for students who are seeking Ph.D.s and/or master's degrees, or is your teaching strictly underclass?

A No, I teach both graduate and undergraduate courses and I also am the research advisor for a number of students at both the masters and the Ph.D. level.

- Q Okay. Are you familiar with the Gary

 Development Sanitary Landfill Facility in Lake County?
 - A Yes I am.

Q Okay. And can you tell us have you ever been on the site of the facility?

A Yes, I visited the site on three different occasions. The first time was on August 6th, 1987. The second time was on August 27th, also 1987, and at that time Jon Cooper and Ted Warner were visiting the site as well. And then the third time I visited just recently was on December 12th, 1990.

Q Other than the three occasions that you've discussed being present at the facility, have you been familiar with the area of Gary Development where the

facility is?

A Yes I have. I've been aware of that
particular area adjacent to Lake Michigan, and I'm also
quite aware of the different, what we call
physiographic divisions, or the types of land forms
that occur in the State of Indiana, which is an
integral part of the teaching program in applied
geology and civil engineering. So I'm generally aware
of the regional aspects. And then I've become aware of
some of the specifics of some of the site in addition
to actually looking at the Gary Development Landfill.

Q Have you ever done a paper or a presentation regarding the area where the landfill is located, but not specifically regarding landfill?

A Yes I have. I had the opportunity several years ago at an organization called the Highway Geology Symposium. It was in August of 1988. And that particular conference dealt with highway construction in urban areas and on the basis of that, I looked into this particular location because the fact it's where the new interchange was constructed on the tollroad, the Indiana Tollroad System. And what had happened in the mid-1980s I think it opened--it actually, the interchange there opened in October of 1986 and what

happened is because to increase traffic, local traffic on the Indiana Tollroad, it was decided by the tollroad commission people to put in additional interchanges which would encourage localized traffic for people to get on at say Gary and drive to East Chicago or to ' encourage local traffic. And part of that development process was to build a number of interchanges. develops, as it turns out, one interchange is immediately to the east of the Gary Development Landfill. Well on the basis of that, I looked into the existing information on the design and construction of that landfill, and related it to the geological features of that site, which includes some aspects of the organic deposits that were there and some of the old landfill materials and just the general construction aspects of putting in the toll plaza and the exit there at Cline Avenue. That's the location, Cline Avenue.

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Q In connection with that study that I think you said in 1988 nearby the landfill, Respondent's landfill, and in connection with your investigation of the landfill itself, do you have information as to the geology of the site, of the Gary Development site?

A Yes I do. I have, both on the basis of the

reports that were available for the tollroad construction and also available for the landfill site itself, and the geological situation is that in some areas there's about 5 feet of fill material at the surface, and then typically about 35 feet of sand. And below the sand, of the order of 50 feet of clay and then below that another 10 feet of very dense other clay material called glacial till. And at that point the bedrock is reached, which is about 100 feet deep and you hit the Racine Dolomite, typically the geological formation there is the Racine Dolomite of silurian age that occurs at that particular site.

Now the history of the landfill, which is revealed in the construction report for the toll plaza adjacent to it, was that basically 35 feet of the sand was removed in the process of making a gravel pit to construct the tollroad. That's the reason that the gravel pit was excavated there was for construction material for the tollroad extension. And then in addition to the sand, 30 feet of clay was excavated below that, making this pit of approximately 65 feet deep.

Now because of the thick nature of the clay there, there is another 35 feet of clay below the base

of the landfill before you reach the top of the bedrock surface, which is as I said, the silurian dolomidic rock that occurs at a depth at approximately 100 feet.

The water table depth was approximately 10 feet below the original ground surface at the time prior to construction. And I think that's fairly typical of the area at the present time, so the water is about 10 feet down, which is about the level of the Grand Calumet River. So we have that particular aspect.

The landfill was begun in about 1974, after the excavation of the gravel had taken place some years before that and had filled up with water. So the gravel pit was pumped dry and then a clay lining was placed around the opening to prevent additional water from coming into it because the fact that it's 35 feet in the sandy material and the water is only 5 feet deep, there would be a tendency, obviously, for the water to come in below the 5 foot depth. And to keep the water from flowing in, to be able to pump it out, a clay liner was placed inside of the excavation. So that's the nature of the construction of the basin in which the landfill was eventually constructed.

Now the fact that there is 30 feet of clay at

the base of the landfill above the dolomite bedrock is, by the standards of the time of construction and pretty much today, is a good liner system for a conventional landfill, conventional solid waste landfill. With 30 feet of clay at the base would meet the requirements certainly of the Indiana Department of Health at the time that this landfill was constructed and designed and is a sizeable thickness even by the most recent standards that we would have of having thirty feet of clay below the base of the landfill.

So by having a natural material to prevent downward migration, and therefore, having built the clay lining on the outside on the boundary of the old sand pit, it was able to construct the landfill such that water is kept out of the landfill itself.

Q Regarding the clay liner you're talking about on the sides of the landfill, have you looked into the composition of that liner and the permeability of the clay material?

A Yes. A study was done by Atec Associates under the direction of Gary Development as a requirement as indicated by the State of Indiana. They put four borings down along the western side of the landfill and drilled through the liner to determine the

nature of the liner material. At one point as I reviewed the information, there was a suggestion made that the boring should be made perpendicular to the liner system, and the liner itself is inclined because if you excavate a hole in sand, in order for the sand to have any opening, retention, you have put it on an angle. So the liner is on a slant, and consequently, the liner is not horizontal, but is inclined.

The borings were made perpendicular to the earth's surface, or vertical. Vertical borings were made, and they did not obviously therefore run perpendicular to the liner, although some suggestions had been made by the Indiana State Board of Health that they should be drilled perpendicular to that. I just realized looking at this, that this is virtually impossible to do with standard equipment to take soil borings perpendicular to an inclined liner. Soil borings of split spoon samples and Shelby tube samples, which were required, have to be taken very close to the vertical because it's a gravity system that gets its power by driving it vertically into the ground.

But at any rate, the four tests were made by

Atec Associates and they obtained permeability values

that were much lower than what had been the required

permeability of this particular liner.

Q Dr. West, admitted into evidence previously in this hearing, and I believe it was Respondent's Exhibit #4, was a certified copy of a settlement agreement, an agreed order in cause number N-95 between the Respondent and the Indiana Environmental Management Board dated February, 1983. And on page 5 it discusses in that exhibit specifically the borings that were to be done and says that, "If the test results show the permeability of the clay wall to be 5.0 times 10⁻⁶ centimeters per second or less, then no remedial action for the west clay perimeter wall will be required unless staff identifies a significant infiltration of liquid as discussed in subparagraph 7C."

So the standard here, it says it's 5.0 times 10^{-6} centimeters per second or less. Based upon the Atec borings and their report, how do the actual permeabilities of the clay in the liner compare to that figure in the state agreed order?

A Of their four tests, the numbers, which I don't have precise numbers with me in front of me, but the values range in the 10^{-7} centimeters per second, to the 10^{-8} centimeters per second. So considerably lower permeability than the required 5 times 10^{-6} .

By comparing the numbers, I found that the clay tests, their permeabilities range from 8 to 208 times less permeable than the requirement, so that before tests were markedly or considerably lower in permeability than the requirements, so therefore, better materials than the requirements asked for.

Q Are you familiar with anything in the--that would be considered a aquifer as relates to, let's say, water wells in the area or on site wells used for production of water?

A Well by definition, an aquifer is a zone in the earth that's saturated with water and has a sufficient permeability to develop a well. On the basis of that, the sand layer that is at the surface that has a water table a depth of five feet would be considered an aquifer. That is a complication, of course, in this area of Gary because of the general nature of all of the industrialization adjacent to that and the Big Calumet River on top of the other aspects is such that one would not typically think of that as an aquifer for water production for water quality because of the overall nature of the industrial aspects on the site. So aquifer, from the permeability and saturated point of view, potable water, likely no, just

because of the nature of the heavy industry that's been there for many, many years. But that would be what would be considered as typically an aquifer system relative to its permeability.

Q Is there a water producing well at the site itself to your knowledge?

A Yes. There is a water producing well for the Gary Development Company which is considerably deeper, extending down into the bedrock. In fact, it was extended down to a depth, according to my information, of 440 feet from the surface, which would have put it some 340 feet down into the bedrock. This is due to the fact that there was not good permeability in the rock up close to the base of the glacial material. And so it was extended below 100 feet depth until a sufficient amount of water was obtained.

Now that's somewhat encouraging to me as a hydrogeologist because of the fact that it tends—it indicates that the downward migration of material through the unconsolidated, through the soil material, is not great, or there would be more water at the upper part of the bedrock at a depth of 100, 110 feet possibly.

So--but there is a well on the site. The

well has a low productivity, likely in the range of less than 5 gallons per minute, so it's a marginal well as far as productivity is concerned. It also appears to be a high sulfur type well or one that has a lot of dissolved materials in it, giving it a strong taste. And my understanding is that the Gary Development Facility, it's not used as drinking water, it's used for flushed toilets and just general water in the shop.

Q The State's order discussing the permeabilities that they desire to exist in the liner, the wall liner at the landfill facility talked about, and I read it to you, about the concern for infiltration into the landfill. Is that a concern more than the opposite? Than liquid moving out of the landfill?

A Well in this particular case it's of greater concern because of the fact that the river is adjacent to the landfill and the water table is only 5 feet below the ground surface, and it's in sandy material. So it wouldn't--because you excavate a hole, the water would tend to move into the hole. So infiltration to the opening would be a very important consideration. Therefore, in order to insure the fact that the trash isn't saturated with water from the surrounding

terrain, it would be necessary to build a liner to prevent the water from flowing inward. So that is the major concern for this site, is to prevent surrounding water to flow into the landfill to saturate it, which would tend to generate more leachate when you get more water mixed with it and by dissolving material in the solid waste. And you want to minimize that particular amount volume of leachate, so you would prevent infiltration. That's the reason, yes.

Q Does this site have what are known as monitoring wells regarding ground water?

A Yes. It has four monitoring wells on each side of the landfill: On the north side and on the east side, south side and on the west side it has the four monitoring wells that were placed around the landfill boundary. They are located outside of the clay liner so that they would measure the water that's—it's away from the landfill; either water that got away from the landfill or exists away from the landfill. So it's measuring the surrounding terrain, not, obviously, the water within the landfill, landfilled material itself.

Q Are those monitoring wells actually sampled and the sample analyzed for certain types of chemicals?

A Yes. According to the permit that the Gary Development Landfill is operating under, which dates back I think to the early 1980s, they are sampling it on a quarterly basis, and the samples are analyzed for the four constituents which were required under their regulations. And so they have been, yes, have been tested on a quarterly basis.

- Q Do you know who does the analysis for the parameters?
- A I think it's the Lake County Health

 Department if I recall. That's--I don't know. Perhaps

 I don't know. It's a facility, it's a public facility

 in the area.
- Q Okay. Have you reviewed the analytical results from those wells that are done for 1990? For this year?
 - A Yes I have.

- Q And do you have an opinion as to what they do or do not show?
 - A Yes I have an opinion.
- Q What is your opinion?
 - A I am impressed by the fact that the chloride content is really quite low in the wells. The chloride is—if chloride is—can be an indicator of movement of

leachate material and the chloride is in I think the 10 to 15 parts per million range. So that is encouraging in that it tends to suggest that there appears to be no indication of chloride leachate effects that are moving through the liner. It has a relatively high total dissolved solids, but that would be indicative of probably the background ground water in this particular industrial area, and so that doesn't appear to be any major consequence on the basis of this particular site.

Q Why is chloride an important parameter to look for regarding a sanitary landfill?

A Well although chloride in itself typically is not a problem material, although usually the standard for chloride is something like 250 parts per million or milligrams per liter, it is a secondary material and it is an indicator of other movement of leachate material in some cases. The reason being is that chloride has a very high solubility; it is easily dissolved in water. And secondly, it's a very abundant, profuse amount of material that's present in garbage and trash and it is not easily removed by passing through the soil. So consequently, even though the chloride might not be the ion that you would be the most concerned about as far as a health aspect is concerned, it is a good

indicator. It is a good target material indicating that contamination is taking place if you should see a very high elevated value for the chloride content.

Q And based upon your review of the laboratory analysis for that chemical and the others, is it your opinion that you don't see really any migration of leachate?

A Based on the information that I have of those three monitoring wells--and I see now it is the Lake County Health Department Laboratory--based on that information, I see no indication of leachate migration outside of the clay liner based on this data.

Q Dr. West, when you were at the site, how long did you spend out there? Can you recall approximately?

A This last time when I was there on the 12th of this month, I was on the site for approximately two and one-half hours. I spent the first part of the period talking to Mr. Larry Hagen and—because it had been several years since I was on the site and I wanted to talk with him to get some background information that had occurred since I had been there last, and then the last hour and a half I'd say was spent looking at the landfill on foot and by vehicle, touring the whole landfill and seeing what the situation was. So I would

say an hour and a half to two hours possibly spent actually on the landfill surface itself and walking around the adjacent location.

Q During the other times you were there, which I think were 1987 on two occasions you indicated, did you spend similar amounts of time on both of those occasions, or do you recall?

A I think the first time I was there I even spent a longer period of time on the landfill itself, maybe an hour, an hour and a half longer. So perhaps something like 3 hours looking around the first time, because my being there the first opportunity I wanted to spend some time carefully looking at things. The second time I was there I spent less time because a portion of the visit was spent discussing general aspects with Mr. Cooper and Mr. Warner, and probably was only on the landfill maybe 45 minutes or so.

Q Okay. On December 13th, I believe the day was you gave when you were out there and when you walked the site, was the site operating as a solid waste disposal facility?

A I think it was December the 12th, which would have been Wednesday of last week. I--the facility was not operating. The only--there was some activity going

on. There was a piece of equipment, a bulldozer pushing soil around--clay material was being pushed over the top of a portion of the landfill. There was no filling operation, there was no trash coming into the landfill. But there was an activity of placing cover over a portion of the landfill.

Q Okay. What is the present status of the facility as far as from an operational standpoint?

A At the end of August of 1989, the landfill closed its operation as far as accepting solid waste material and has not accepted any waste since that particular time. So for the last 18 months or so it's been in the process of having clay brought in from out off the site because there is no more availability of excavating clay on the site on the present circumstances, and so clay is being brought in from off site and deposited on top of the landfill and then moved around with earth moving equipment in order to complete the needed cover for the landfill.

Q Do you know what type of cover the state is requiring?

A My understanding the state is going require two feet of clay over the top of the conventional part of the landfill, which would be that consisting of the

conventional waste and trash and garbage material. I also understand that through the special portion of the landfill in which flyash was mixed with the trash and allowed to harden, that there is an agreement which allows for only one foot of clay to be required over that particular portion of the landfill. So that is my understanding based on the two different kinds of materials, a different amount of clay would be placed over the top of those.

Q The area where you mentioned flyash was mixed with waste and allowed to harden, approximately what percentage, if you know, of the site is that area? The flyash area let's call it.

A Well it's--the flyash area is located on the eastern part of the site, and I would estimate it to make up perhaps about a fifth of the site, so say about 20 percent.

Q When you were at the landfill recently, did you actually personally observe the clay, piles of clay and equipment moving clay cover onto the facility?

A Yes I did. There was a pile of clay that was being moved around. Although it was a little bit wet, the dozer was working that day and was pushing the material around. I could see an area where the clay

had been recently placed in, it looked to be in about the east central part of the landfill. And I could also observe other areas where clay was yet to be placed, more to the western side of the landfill.

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Q Okay. As an expert, did you view anything at the landfill facility recently when you were out there that you considered to be a problem?

I would say that the area of the north pit is at least a strong concern, perhaps a problem in that it is left unconstructed. It is a sizable pit that is along the northern boundary of the landfill that I estimated to be about perhaps 900 feet long, 40 feet deep, and approximately 150 feet wide, such that by rough calculation it turns up to be maybe 200,000. cubic yards of material that was still--this depression in this large pit that's located along the side. concern for that is is that it's clear that water is running off of the Vulcan material site to the west that is able to drain onto the northwest corner of the landfill. And although there is a soil dike that's been constructed there, it's able to seep through there or possibly top that dike and pour into that pit and collect water down into this pit of area where the trash has not been placed. Because of that, water

accumulates in that particular pit and has to be pumped out of there to prevent it from accumulating too much.

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So I saw that as a problem, the fact that the Vulcan material site has a culvert that drains immediately into the area adjacent to that and runs into that pit. And that is a concern to me that that area has not been filled in, that solid waste has not been placed in that particular large pit.

Q What is Vulcan Chemical or Vulcan materials?

Can you explain what that is?

A I guess Vulcan Chemical is a proper name for it originally. It has now changed to AMG Resources, which has recently bought our the Vulcan site.

It is a scrap metal facility that removes tin and removes other metals from scrap iron and scrap steel and processes it by adding acids and other type of corrosive materials to the metal to remove the trace metals from it. In the process of that, they have a lot of scrap metal that's sitting around on the eastern part of their site, which is right adjacent to our particular location at Gary Development site. In fact, along the western part of the site they have some scrap metal that sits directly into a drainage ditch and is in contact with water on the Gary Development site and

clearly could obtain metals from that scrap and get onto the Gary Development site in the process. So my concern is is the fact that it is adjacent to the landfill, it is a higher elevation than the drainage ditch and the pit itself. Water can run off of that particular salvage yard and get into the waters on the site of Gary Development.

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Q You termed the phrase, I guess, or you termed the existing circumstance out there as a pit.

Basically, can you more describe--what is this? Is this something that is dug? Is this something that is remaining because waste was not disposed of?

A Yes, that's the nature of it. The waste was not disposed along the north wall of the landfill.

This was done purposely because of the fact that permission was not obtained from the State of Indiana to fill that particular part of the landfill.

The procedure was to place clay up against the sand, exposed sand sides of the landfill, of the old sand and gravel pit. Now a small amount of clay had been placed there, but not the final clay thickness had been done. And my understanding is is that full permission to fill in that particular pit was withheld from Gary Development because of—there was no decision

made or no judgement made as to how that should be accomplished as far as the Department of Environmental Management of the State of Indiana. So consequently, that area was left unfilled and left that way at the end of the process of the Gary Development site. So when they closed in August of 1989, they had not placed material in that particular pit area because they were restricted from doing such by the regulations of the State of Indiana, or at least lacking permission from the state to do so.

Q Do you know whether at that time Gary
Development requested a variance or authority to
complete that area from the Indiana Department of
Environmental Management?

A Yes. It's my understanding that shortly before they actually closed in August of '89 they did make a request for a variance to proceed to fill that pit in with solid waste material. But having a variance such that they would fill it under the rules existing prior to August of '89, and not under the regulations which have since come into account. So that would have been a period of perhaps almost 18 to 20 months ago that this request for variance was made, but there's been no decision forthcoming from the State

of Indiana Department of Environmental Management since that time.

- Q When you were out at the landfill recently, did you review any inspection reports that were apparently done by the Indiana Department of Environmental Management on this site?
 - A Yes I did.

- Q Okay. Do you recall what type of inspection reports those were?
- A Yes. Those are the latest edition of the inspection reports that are used for conventional standard solid waste landfill inspections. They're the variety that is used for all the other conventional landfills in the State of Indiana. I noted with interest because those particular forms have gone through several additions over the last year or so and so some of the details are different from one month to the next it appears. But I looked at those carefully and I noted that they were the conventional solid waste regulation forms that were used.
- Q Did the state inspectors at all, on reviewing those reports, discuss the covering of the landfill with the clay material?
 - A Yes. That was an item that they did list.

They indicated that the clays were being added to a portion of the landfill, that the clay cover was being placed over a portion of it. They made a note of the fact that they could see that additional clay was needed further to the western part of the site. There was a notation made that part of the area did not have sufficient clay on it and it needed to have the two feet of clay placed. And there was also a statement relative to the flyash material; the fact that a sizeable portion had flyash at the surface and needed to be covered as well. So that was part of the evaluation that was made, yes.

Q In reviewing the inspection reports that you looked at at the landfill facility a week or so ago, did you see any reports where the state had inspected this facility as a resource conservation and recovery site?

A No. There was no indication that this was reviewed from the RCRA point of view. It was strictly conventional solid waste landfill evaluation.

Q Dr. West, could you explain to me briefly what the difference is--you indicated that I think you classified yourself as a hydrogeologist. What is the difference between a hydrogeologist and a hydrologist?

A Yes. The hydrogeology is one of the areas that I operate in; one of my areas of expertise. I also mentioned engineering geology, which is a combination of geology and engineering construction.

Relative to the two terms you mentioned, a hydrogeologist is a geologist who works with water typically, almost to a great extent, groundwater. Does a lot of work with groundwater studies. The term hydrology or hydrologist more often or typically is a civil engineering person and almost most of their work has to do with surface water. So we have a distinction from the hydrologist, who is more of a surface water person, typically a civil engineer, and a hydrogeologist, who is a geological person, who typically does more groundwater.

Now there is a little bit of an overlap between them, but the specific areas are still quite clear. They hydrogeologist as a geological person, tends to know a great deal more about the subsurface, the movement of water through the ground, whereas hydrologists deal more with floods and flood routing and being able to build structures sufficiently high that they don't get flooded out and deal with the aspects of flooding and flood plane management, things

of that sort. So there is a distinction between the two.

- Q The problem that you've discussed in your opinion, the problem at the site, the pit or the hole where waste was not filled, do you have an opinion as to how that could be handled from an environmental standpoint, that in your opinion, would be environmentally sound?
 - A Yes I do. I have an opinion on that.
 - O And what would that be?

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I think the primary need is to insure the fact that the clay and the liner on the north side is sufficiently thick to keep water from coming out into the pit, and equally sufficiently thick to stop water from migrating from the landfill to the liner and getting out into the surrounding terrain. So it's necessary to have a properly compacted liner placed in that area, really pretty much similar to the liner that has been placed in other parts of the landfill. think with today's standards we can compact the clay sufficiently so that you would get the low permeability effects. There are some construction techniques that would tend to insure the fact permeability would be quite low, and that would be how I would go about

constructing it.

In order to do that, of course, you have to drain the water out of it, you have to find a way to keep the water out of it. It's very difficult to construct things when you have water accumulating in them, in the construction business it's called operating in the dry, which means you've got to get the water out before you can do good construction work. So consequently, there would be a combination of keeping the water from the Vulcan materials area from washing into that hole, and also, from building up a compacted clay liner to insure the fact that water will not neither seep into it, nor seep away.

- Q Dr. West, do you have any economic interest in Gary Development Company, Inc?
 - A No I don't.
 - Q You're not an employee of the company?
- A No I'm not.
 - Q Okay. You are--indicated you are employed by Purdue University. Do you also do private consulting work?
 - A Yes. I have been an active private consultant essentially since I received my Ph.D. in 1966, so I've been actively involved in different

aspects of construction related geology for lo 25 years now. I think it's particularly significant in my own field of applied geology because it helps me to direct graduate students in areas of research, and it helps me to determine the areas where research needs to be done and leads me to research funding and things of that sort. So it's been an extremely good marriage over the years for me to be related directly to construction aspects.

And for the last 15 years, this has included sanitary landfills. I have not exclusive worked neither for nor in opposition to sanitary landfill construction. I have, on numerous occasions worked for citizens groups and tried to point out problems with proposed landfills and with the approach that the best way to reduce the problems of landfills is to make sure the construction is done as best as possible. And I worked for landfill firms themselves, so I have not been exclusively either pro or con as far as the landfill construction business is concerned. And consequently, I feel that it's been a valuable contribution insofar as what I've been able to contribute in the construction aspect, and also of course, things I've learned for my students to be able

1 to work on these projects.

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Q With these private clients, do you charge them on a results type fee, or do you charge them on an hourly basis regardless of the result?

A I charge then on an hourly basis that's not related to the results. I've had a couple of difficult times, I must say, with a small country attorney one time who felt that I should only get paid if he won the case. And I told him, well that may be the way that attorneys work, but engineers and geologists don't work that way. And consequently, if they couldn't give me a retainer, I would not be interested in the project. And so fortunately we came to an agreement on that and I didn't have to wait six months or nine months to see what the outcome of the case was going to be.

- Q In addition to private clientele, have you done any consulting work for any governmental entities?
- A Yes I have. I have worked for some governmental entities, yes.
 - Q And can you tell us which ones?
- A I have done some projects which basically I would assume would relate back to the federal government, but through an independent firm that wanted a review of some design projects, so I'd say for the

U.S. Government I've done some work.

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Q Okay. Have you done anything for the Indiana
Department of Natural Resources?

Yes I have. I have had a research contract or research related project with the Indiana Department of Natural Resources, the Division of Reclamation for about five years now. This turns out to be a very closely related area, strangely enough, to sanitary landfills is the reclamation of old strip mines in southern Indiana. The groundwater contamination problems from strip mines and mine processing wastes is very similar in a way to what happens with sanitary landfills because you get movement of heavy metals and the movement of cations and things and sometimes hydrocarbons, which is related to the same geological And of course the background of subsurface detail. work is drilling and expiration and developing geological detail. And the two of them go very closely together. Yes.

MR. KREBS: Your Honor, may I have a moment?

I think I'm finished with this witness. I wanted to review my notes if I could.

THE COURT: Yes.

24 (Pause.)

1	THE COURT: Dr. West, when your testimony has
2	finished, would you consult with the court reporter and
3	assist her with any spellings she may need?
4	THE WITNESS: Certainly.
5	THE COURT: Such as Racine Dolomite, silurian
6	age.
7	THE WITNESS: Yes I will.
8	THE COURT: We want to make sure these are
9	spelled correctly for the record. Cations.
10	THE WITNESS: Silurian is an old English name
11	that comes out of England.
12	MR. KREBS: Your Honor, that's all the direct
13	questions we have at this time.
14	THE COURT: Mr. Radell?
15	MR. RADELL: Yes.
16	CROSS-EXAMINATION
17	BY MR. RADELL:
18	Q Dr. West, are you familiar with the state and
19	federal laws and regulations for hazardous waste?
20	A Yes, to some extent I am.
21	Q Have you designed any hazardous waste
22	landfills?
23	A Yes, I've been involved in some of that. I
24	was instrumental in working through a Part B

application for hazardous waste landfill in the mid-1980s. I have reviewed a number of hazardous waste landfill designs. I have contributed to some of them as well.

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Q Can you say that the Gary Development

Company's landfill meets--was designed to accept

hazardous wastes and to comply with federal and state

laws for hazardous waste landfills?

A Well it would certainly be under the current conditions that we have at the present time. The regulations for hazardous waste landfills has changed markedly over the last 5 or 6, 10 years. But I don't believe it was designed to be a hazardous waste landfill. My understanding is that they were under the assumption that it is a conventional landfill.

Q Uh-huh. Does the Gary Development Landfill have a double liner underneath it?

A Well double liner systems have been involved for hazardous waste landfills, perhaps since the 1980s. Of course this landfill predates that particular time. But double liner systems are typical of landfills and in fact, they are now becoming more apparent when we get conventional landfills, so that the landfill design procedure has certainly gotten more stringent as time

has gone on. We have, you know, what I see in the landfill business, you have a lot of landfills that were constructed a number of years ago and under different regulations and there's really no way to retrofit a situation of that sort.

Uh-huh. 0

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So I would say it does not have a double liner system in it. No, it doesn't.

Okay.

It has a clay liner. It has a very sizable base clay liner. The sides are obviously not as thick as the base is though.

Uh-huh. Does it have any kind of a leachate collection system?

No, it doesn't have a leachate collection system.

Regarding the groundwater monitoring Okay. system in place at the Gary Development Landfill, do you know if that meets the RCRA hazardous waste requirements for groundwater monitoring systems?

I would assume that it would not. The RCRA requirements are typically much more stringent than they are for conventional landfills, and this has the monitoring system that was required of a conventional landfill back in the early 1980s. So it would be a surprise if it would qualify for that, yes.

Q Are you familiar with the ways in which the existing groundwater monitoring wells were actually constructed?

A Well I am aware of the fact that they were placed, as I say, I think in the early 1980s and they were done sort of in the fashion that was typical of monitoring wells at that particular time. I know of a number of landfills when this actually occurred.

In the State of Indiana, you find that the regulatory agency and the landfill operators sort of grew up together in their educational process, and so they would be somewhat typical of early monitoring wells that were put in conventional landfills in the State of Indiana.

Q So do you know whether those wells were constructed in a manner so that they would currently meet RCRA hazardous waste regulations for monitoring wells?

A I'd assume that they would not meet the regulations. The regulations for monitoring wells today are much more stringent than they were in the 1980s.

	Q	Are y	ou awai	re i	E ar	ny ha	azardous	cons	stit	uent	S
have	ever	been	tested	for	in	the	groundwa	ter	at	the	
Gary	Deve	lopmer	nt Facil	lity?	?						

A I know that the State of Indiana took some split sample testing out of the monitoring wells in the past. I don't recall what the results of that would happen to be.

O Uh-huh.

A And if--I assume they would have tested for some things which would perhaps be more similar to the hazardous waste list that is currently tested for today.

O Uh-huh.

A But I don't happen to remember the results from that.

Q Okay. Based upon your familiarity with the Gary Development site, can you express an opinion whether or not any hazardous constituents have migrated into the groundwater from that facility?

A I have no knowledge that any have. But as I say, I'm limited to the information from the four monitoring wells, which were done on a quarterly basis there.

Q Regarding the existing barriers that are in

effect now for keeping water from migrating into and out of the landfill, would you say that the existing barriers are effective in keeping water, stopping water from migrating in and out of the landfill, or other liquids?

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Well they appear to be, perhaps for the north wall. There is some indication along the north wall, which has not been completed of course, that there is some groundwater seepage that's coming into that.

I know a statement was made in one of the review reports that they had observed leachate coming out of the side of the pills of the landfill and the inspector made some comment that that indicated that the clay liner wasn't working. And I had to scratch my head at that, because that's not where the clay liner The clay liner is below the ground, not above the So if you see leachate coming out of the landfill, that doesn't mean that the clay liner is not working. I don't know how one would determine that the clay liner is not working because the clay liner is all covered up. Only the fact that was drilled in four places and it's permeability turned out to be one hundredth or one-two hundredth less than what its requirement was, which would suggest that it operates

as though it was 100 times thicker than if the landfill--than the liner would have had to be under the specific requirements.

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Q Are there any types of piezometers or other wells that would locate both inside and outside the fill on either sides of the existing barriers that would enable one to determine the comparative levels of water in and outside the landfill?

Well yes. One could put a piezometer inside of the landfill and determine what the water level is in the trash material. That would tell you what the It doesn't necessarily tell you that water level is. it's moving anywhere, it just tells you that there's a gradient from inside the landfill to the outside. a gradient does not necessarily determine that you have movement; you have a potential for movement. If the clay is doing its job, then the difference would still persist and the water would get out of the landfill by some other method, perhaps by evaporation or some other procedure whereby the water would disappear without going through the liner. So the fact that you show a difference in water level inside and outside the liner doesn't show that it's necessarily moving through the It only shows that you have a gradient in that liner.

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Are there any such piezometers in place now inside the fill?

Not to my knowledge. I don't know that it was ever suggest that they be placed there. aware of that.

Mr. Krebs had alluded earlier to some reports 0 by the Lake County Health Department Laboratory regarding--you referred to the chloride levels that were taken from these reports. One report that was dated November 14, 1990 states that, "no samples were taken from the west wall area because it was flooded." I was wondering if you had any knowledge how that area came to be flooded and how such a flooding might affect leachate passing into or out of the landfill.

Well now that his indicated both for the Α November 14th and the August 3 test that the west monitoring well was not measured because it was flooded. And I happened to observe that area on the western side of the landfill. It still has a considerable amount of water sitting in that particular ditch. In fact, that was the reason why the delay took place before they could drill the liner on the west side of the landfill because the water has persisted

there for some time. It runs off the Vulcan site and ends up in that particular ditch.

The problem obviously is is the water builds up in there and it doesn't have a good way to drain away. It is prevented from draining to the south and toward the river, and in fact, you don't want it to drain to the north into the pit. So there's an attempt made to keep the water in that particular location. I would think there needs to be a long term, or maybe it's a short term solution of removing the water from that particular ditch and get it to drain away from there, hopefully into the Grand Calumet River.

Q Uh-huh. Are you familiar with the RCRA hazardous waste inspections which the Indiana

Department of Environmental Management conducted at Gary Development Company on April 26, 1988 and June 6, 1990?

- A Who was the inspector on that?
- O Ted Warner.

A I recall seeing a report that indicated that

Ted Warner had made an inspection on the site and I

recall something to the effect of him making a

statement in his report that this didn't meet hazardous

waste requirements for a landfill. So I have seen

1 that, yes.

Q Alright. And regarding Cause 53, the state agreed order, are you-do you know whether or not that dealt with hazardous waste, or was that just for solid waste that was non-hazardous?

A I think that order dealt with conventional solid waste material and not with hazardous waste.

MR. RADELL: Alright. Thank you.

THE COURT: Mr. Krebs, redirect?

MR. KREBS: I have no redirect, Your Honor.

THE COURT: Well Dr. West, it appears that your testimony is at an end. Thank you very much for coming. You are excused and you may step down.

THE WITNESS: Thank you, Judge Greene.

(Whereupon, the witness was excused.)

THE COURT: Now then, if there are other witnesses that are here, if you have anything further you wish to do.

MR. KREBS: Yes Your Honor, there is. And I decide whether to do this or not, I'm going to, going to. I guess this would be considered an admission against interest, so look at these for awhile.

I have two documents here where are recent,

last this year. Both of them are signed by the Commissioner of the Indiana Department of Environmental Management, Kathy Prosser (ph), and both relating to Gary Development. They are—one is an emergency order of the Commissioner, which is dated October 16th this year, the other is an agreed order signed by the Commissioner on October 11, 1990. And I offer these into evidence even though these documents do discuss—one of them discusses a fine being levied by the state against my client, one of them discusses the possibility or an allegation of a leachate problem.

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The purpose that I am offering these documents into evidence is the fact I think they will show the State of Indiana considers this facility to be a "sanitary landfill" and not a RCRA facility. And that's how it has been classified by the State of Indiana.

THE COURT: I have it you are offering these.

Mr. Radell?

MR. RADELL: I would like a chance to review them if I may.

MR. KREBS: In fact, if he would--if we would want to decide on this tomorrow morning, that's fine with me also. If he needs more time to look at them.

1	THE COURT: Well yes, and we may have that
2	time since you don't have another witness ready to go.
3	MR. KREBS: Alright. The next witness is
4	subpoenaed for 9:00 a.m.
5	THE COURT: Yes.
6	(Pause.)
7	MR. RADELL: Mr. Krebs, we had a
8	Kathy Schmidt the last time we met. Could this be the
9	same as the original Prosser? Did she marry or
10	something? Unusual to have the same
11	THE COURT: I don't believe so.
12	MR. KREBS: I believe Katherineor a Schmidt
13	is a geologist in the water department for IDEM.
14	THE COURT: Carol Schmidt.
15	MR. RADELL: Carol Schmidt.
16	VOICE: Carol Schmidt is the chief geologist
17	at the IDEM. Kathy Prosser is the new head of the
18	section, recently appointed by
19	THE COURT: Thank you.
20	MR. KREBS: Perhaps it would be appropriate
21	for me to identify these now for the record?
22	THE COURT: Yes.
23	MR. KREBS: For tomorrow. There will be one
24	document so marked by the court reporter as

Respondent's Exhibit 16. Here is a certification of authentication of public records on the front and the document is the emergency order of the Commissioner, with a date on the third page of October 16, 1990.

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(Whereupon, Respondent's Exhibit 16 was marked for identification.)

MR. KREBS: The second document is

Respondent's Exhibit #17, also has a certificate of

authentication of public records on the front, and it

is a three-page document that is entitled, "RE: Order"

and has a signature by the Commissioner of the Indiana

Department of Environmental Management, with the date

of October 11, 1990.

(Whereupon, Respondent's Exhibit 17 was marked for identification.)

MR. RADELL: Your Honor, I think I'm going to object to the admission of these documents just based on irrelevancy, because neither of these has to do with whether or not the facility is a RCRA hazardous waste facility or a solid waste facility. One deals with violations of the Water Pollution Control Act, and the other the Clean Air Act, and neither document has any

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1	relevancy to whether or not hazardous waste is indeed
2	in this landfill.
3	THE COURT: Well since I haven't had a look
4	at them myself, what I will do is
5	(Pause.)
6	THE COURT: Does somebody have copies of
7	these, or is this the only copy?
8	MR. KREBS: I beg your pardon?
9	THE COURT: Are there extra copies of these
10	two documents?
11	MR. KREBS: Yes. Yes.
12	THE COURT: And Mr. Radell has a copy of
13 ,	each?
14	MR. RADELL: Yes.
15	THE COURT: Well I'll allow them. Number 16
16	and 17 for the Respondent are admitted.
17	(Whereupon, Respondent's
18	Exhibits 16 and 17 are
19	received into the record as
20	evidence.)
21	MR. RADELL: Which is 16 and which is 17?
22	THE COURT: 16 is the October 29, 1990
23	emergency order admission.
24	MR. RADELL: Okay.

,	THE COURT: And number 17 is the RE: Order.
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2	Off the record a moment.
3	(Whereupon, the reporter went
4	off the record as requested.)
5	THE COURT: On the record please.
6	The next witness having been subpoenaed for
7	9:00 tomorrow morning, and the hour growing late here,
8	we will recess for the day until 9:00 tomorrow morning.
9	(WHEREUPON, THE HEARING WAS ADJOURNED AT
10	3:30 P.M. TO BE RECONVENED ON TUESDAY,
11	DECEMBER 18, 1990 AT 9:00 A.M.)
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STATE OF ILLINOIS)
) SS.
COUNTY OF C O O K)

I, ANNE I. MAZIORKA, a Notary Public within and for the County of Cook and State of Illinois do hereby certify:

That previous to the commencement of the examination of the witnesses, the witnesses were duly sworn to testify the whole truth concerning the matters herein:

That the foregoing transcript was reported to me by electronic audio sound recording, was thereafter reduced to typewriting under my personal direction and constitutes a true record of the testimony given;

That the said hearing was taken before me at the time and place specified;

That the hearing was adjourned as stated herein;

That I am not a relative or employee or attorney or counsel, not a relative or employee of such attorney or counsel for any of the parties hereto, not interested directly or indirectly in the outcome of this action.

"OFFICIAL SEAL"
ANNE I. MAZIORKA
Notary Public, State of Illinois
Ny Commission Expires 1/22/92

Notary Public, Cook County, IL

My Commission expires 1/22/92.